

OM protein - protein search, using sw model

Run on: January 24, 2005, 21:27:49 ; Search time 111.079 Seconds  
(without alignments)  
1207.832 Million cell updates/sec

Title: US-10-791-166-2  
Perfect score: 1970  
Sequence: 1 MLSTSRSRFRIRNTNESGEEV.....GKGKSIGRAPEASLQDKEGA 374

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 2002273 seqs, 358729299 residues

Total number of hits satisfying chosen parameters: 2002273

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_23Sep04:\*  
1: geneseqp1980s:\*  
2: geneseqp1990s:\*  
3: geneseqp2000s:\*  
4: geneseqp2001s:\*  
5: geneseqp2002s:\*  
6: geneseqp2003as:\*  
7: geneseqp2003bs:\*  
8: geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query		DB	ID	Description
		Match	Length			
1	1970	100.0	374	2	AAR79165	Aar79165 Human mon
2	1970	100.0	374	4	AAG80107	Aag80107 Human CCR
3	1970	100.0	374	6	ABU09083	Abu09083 Human che
4	1970	100.0	374	7	ADD44861	Add44861 Human Pro
5	1970	100.0	374	7	ADD44865	Add44865 Human Pro
6	1970	100.0	374	7	ADP65146	Adp65146 Human che
7	1970	100.0	374	8	ADO29221	Ado29221 Human GPC
8	1823	92.5	344	5	ABG92881	Abg92881 Class I r
9	1823	92.5	344	6	ABU61655	Abu61655 Human mon

10	1823	92.5	344	7	ADF72129	Adf72129	Human	G-p
11	1823	92.5	344	8	ADP86217	Adp86217	Human	MCP
12	1727.5	87.7	329	4	AAB46859	Aab46859	Human	MCP
13	1727.5	87.7	329	5	ABB81055	Abb81055	Human	MCP
14	1651.5	83.8	360	2	AAR79166	Aar79166	Human	mon
15	1651.5	83.8	360	2	AAW35833	Aaw35833	Human	mon
16	1651.5	83.8	360	4	AAG80108	Aag80108	Human	CCR
17	1651.5	83.8	360	4	AAU07614	Aau07614	Human	wil
18	1651.5	83.8	360	6	ABP97725	Abp97725	Amino	aci
19	1651.5	83.8	360	6	ABP81987	Abp81987	Human	C-C
20	1651.5	83.8	360	8	ADM67225	Adm67225	Human	adi
21	1651.5	83.8	360	8	ADL82831	Adl82831	Human	PRO
22	1650.5	83.8	360	4	AAU07613	Aau07613	Human	CCR
23	1645.5	83.5	360	4	ABB56340	Abb56340	Non-endog	
24	1589.5	80.7	347	7	ADF56627	Adf56627	Partial	h
25	1332.5	67.6	373	8	ADM67224	Adm67224	Murine	ad
26	1332.5	67.6	373	8	ADO29222	Ado29222	Mouse	GPC
27	1332.5	67.6	373	8	ADP74040	Adp74040	Murine	CC
28	1244	63.1	354	8	ADO29228	Ado29228	Mouse	GPC
29	1236	62.7	352	4	AAG79089	Aag79089	Amino	aci
30	1234	62.6	354	2	AAW54037	Aaw54037	Mouse	CC-
31	1230	62.4	354	7	ADD44859	Add44859	Rat	Prote
32	1230	62.4	354	7	ADD44863	Add44863	Rat	Prote
33	1224	62.1	352	2	AAW27407	Aaw27407	Human	CCR
34	1224	62.1	352	2	AAW27123	Aaw27123	Human	che
35	1224	62.1	352	2	AAW27125	Aaw27125	Macaque	c
36	1224	62.1	352	2	AAW23835	Aaw23835	Human	CC
37	1224	62.1	352	2	AAW88232	Aaw88232	HIV-1	co-
38	1224	62.1	352	4	AAE07048	Aae07048	Human	G-p
39	1224	62.1	352	4	AAG80111	Aag80111	Human	CCR
40	1224	62.1	352	4	AAE04321	Aae04321	Human	che
41	1224	62.1	352	4	AAE07039	Aae07039	Human	G-p
42	1224	62.1	352	4	AAB46858	Aab46858	Human	HDG
43	1224	62.1	352	4	AAB83354	Aab83354	Human	CCR
44	1224	62.1	352	4	AAB82948	Aab82948	Human	HIV
45	1224	62.1	352	5	AAU97152	Aau97152	Human	G-p

#### ALIGNMENTS

##### RESULT 1

AAR79165

ID AAR79165 standard; protein; 374 AA.

XX

AC AAR79165;

XX

DT 25-MAR-2003 (revised)

DT 29-DEC-1995 (first entry)

XX

DE Human monocyte chemoattractant protein-1 receptor MCP-1RA.

XX

KW Monocyte chemoattractant protein-1 receptor; MCR-1R; chemokine.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT Domain 1. .48  
 FT /label= extracellular  
 FT Domain 49. .70  
 FT /label= transmembrane  
 FT Domain 80. .700  
 FT /label= transmembrane  
 FT Domain 115. .136  
 FT /label= transmembrane  
 FT Domain 154. .178  
 FT /label= transmembrane  
 FT Domain 204. .231  
 FT /label= transmembrane  
 FT Domain 244. .268  
 FT /label= transmembrane  
 FT Domain 295. .313  
 FT /label= transmembrane  
 FT Region 314. .375  
 FT /label= carboxyl tail  
 XX  
 PN WO9519436-A1.  
 XX  
 PD 20-JUL-1995.  
 XX  
 PF 11-JAN-1995; 95WO-US000476.  
 XX  
 PR 13-JAN-1994; 94US-00182962.  
 XX  
 PA (REGC ) UNIV CALIFORNIA.  
 XX  
 PI Charo I, Coughlin S;  
 XX  
 DR WPI; 1995-263866/34.  
 DR N-PSDB; AAQ96297.  
 XX  
 PT DNA encoding monocyte chemo-attractant protein-1 receptor - used partic.  
 PT for identifying antagonists and for treating diseases characterised by  
 PT monocytic infiltrates.  
 XX  
 PS Claim 2; Fig 1; 84pp; English.  
 XX  
 CC To identify and clone new members of the chemokine receptor gene family,  
 CC degenerate oligo primers were designed corresp. to the conserved  
 CC sequences R79167 in the second and R79168 in the third transmembrane  
 CC domains of the MIP-1alpha/RANTES receptor, the IL-8 receptors and the  
 CC HUMSTRS orphan receptor (GenBank Accession #M99293. The degenerate oligo  
 CC incorporating EcoRI and XhoI sites at their 5' ends are Q96299 and  
 CC Q96300. Amplification of cDNA derived from MM6 cells with the primers  
 CC yielded a number of PCR products. One cDNA appeared to encode a novel  
 CC protein. To obtain a full-length version of this clone, a MM6 cDNA  
 CC library was constructed in pFROG and probed with the PCR product. A 2.1  
 CC kb cDNA clone was obtd. Analysis of additional clones in the MM6 cDNA  
 CC library revealed a second sequence that was identical to the 2.1 kb cDNA  
 CC sequence first obtd. from the 5' UTR through the putative seventh  
 CC transmembrane domain but contained a different cytoplasmic tail. The  
 CC second sequence appears to represent alternative splicing of the carboxyl  
 CC -terminal tail of the MCP-1R protein. The two sequences are denoted MCP-  
 CC 1RA and MCP-1RB (see Q96297/R79165 & Q96298/R79166). Active mature MCP-

CC 1RA has a predicted mol. wt. of about 42,000 daltons. MCP-1RB has a mol.  
CC wt. of about 41,000 daltons. (Updated on 25-MAR-2003 to correct PN  
CC field.)  
XX  
SQ Sequence 374 AA;

Query Match 100.0%; Score 1970; DB 2; Length 374;  
Best Local Similarity 100.0%; Pred. No. 4.9e-215;  
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
          |||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
          |||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
          |||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
          |||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
          |||
Db    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
          |||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
          |||
Db    361 GRAPEASLQDKEGA 374
```

RESULT 2

AAG80107

ID AAG80107 standard; protein; 374 AA.

XX

AC AAG80107;

XX

DT 17-JAN-2002 (first entry)

XX

DE Human CCR2a protein.

XX

KW Chemokine; tumour diagnosis; colorectal; prostatic; organ rejection;  
KW inflammation; autoimmune disease; metastasis; bronchial asthma; lupus;  
KW chronic bowel inflammation; rheumatoid arthritis; cytostatic;  
KW antiinflammatory; antiasthmatic; immunosuppressive; dermatological;  
KW antirheumatic; antiarthritic.

XX

OS Homo sapiens.

XX

PN WO200172830-A2.  
 XX  
 PD 04-OCT-2001.  
 XX  
 PF 02-APR-2001; 2001WO-EP003708.  
 XX  
 PR 31-MAR-2000; 2000DE-01016013.  
 XX  
 PA (IPFP-) IPF PHARM GMBH.  
 PA (FORS/) FORSSMANN U.  
 XX  
 PI Forssmann W, Adermann K, Heitland A, Spodsberg N;  
 XX  
 DR WPI; 2001-626256/72.  
 XX  
 PT Diagnostic agent containing two or more receptor-specific ligands, useful  
 PT for detecting tumors, inflammation etc., also therapeutic use of ligand  
 PT inhibitors.  
 XX  
 PS Disclosure; Page 9; 26pp; German.  
 XX  
 CC This invention describes a novel diagnostic agent (A) comprising at least  
 CC two different ligands (I) for receptors (II) that are implicated in  
 CC disease. (A) are used for the diagnosis of tumors (especially colorectal  
 CC or prostatic), organ rejection, inflammation and autoimmune diseases.  
 CC Also inhibitors of (I) are used therapeutically against tumors (and their  
 CC metastases), inflammation (particularly bronchial asthma or chronic bowel  
 CC inflammation), or autoimmune diseases (rheumatoid arthritis or lupus),  
 CC where the (cardio)vascular, lymphatic, respiratory, nervous, digestive,  
 CC endocrine, motor or urogenital systems or skin are affected, and bone  
 CC marrow diseases. The products of the invention are chemokine derivatives  
 CC which have cytostatic, antiinflammatory, antiasthmatic,  
 CC immunosuppressive, dermatological, antirheumatic, antiarthritic.  
 CC Chemokines act on specific tumor and inflammatory cells through a  
 CC constellation of chemokine receptors (CR), which control migration and  
 CC proliferation of these cells. AAG80045-AAG80128 represent human chemokine  
 CC fragments used to illustrate the method of the invention  
 XX  
 SQ Sequence 374 AA;

Query Match 100.0%; Score 1970; DB 4; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 4.9e-215;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60  
 Qy 61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVFGNAMCKLFTGLY 120  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVFGNAMCKLFTGLY 120  
 Qy 121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGLIIFTK 180  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGLIIFTK 180  
 Qy 181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

```

      |||
Db      181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLLIMVICYSGILKTLLRCRNEKKRHR 240
Qy      241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
      |||
Db      241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
Qy      301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
      |||
Db      301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
Qy      361 GRAPEASLQDKEGA 374
      |||
Db      361 GRAPEASLQDKEGA 374

```

RESULT 3

ABU09083

ID ABU09083 standard; protein; 374 AA.

XX

AC ABU09083;

XX

DT 23-JUL-2003 (first entry)

XX

DE Human chemokine receptor-2 (CKR-2) polypeptide.

XX

KW Human; thymus expressed chemokine; TECK; chemokine; MIP-3alpha; receptor;  
 KW MIP-3beta; dendritic cell receptor for chemokine; DC CR; M/DC CR; asthma;  
 KW monocyte/dendritic cell receptor for chemokine; inflammatory condition;  
 KW abnormal physiology; abnormal proliferation; degeneration; atrophy;  
 KW antiinflammatory; antiasthmatic; cytostatic; chemokine receptor-2; CKR-2.

XX

OS Homo sapiens.

XX

PN US2003018167-A1.

XX

PD 23-JAN-2003.

XX

PF 03-JAN-2002; 2002US-00039659.

XX

PR 05-JUL-1996; 96US-0021664P.

PR 11-OCT-1996; 96US-0028329P.

PR 04-JUN-1997; 97US-0048593P.

PR 03-JUL-1997; 97US-00887977.

XX

PA (SCHE ) SCHERING CORP.

XX

PI Wang W, Gish KC, Schall TJ, Vicari A, Zlotnik A;

XX

DR WPI; 2003-416900/39.

XX

PT New chemokines, TECK, MIP-3 alpha, MIP-3 beta, DC CR and M/DCCR, useful  
 PT for treating conditions associated with abnormal physiology or  
 PT development, including inflammatory conditions (e.g. asthma), and  
 PT abnormal proliferation.

XX

PS Disclosure; Page 9-10; 54pp; English.

XX  
 CC The invention relates to nucleic acids encoding the chemokines TECK, MIP-3alpha, MIP-3beta, DC CR and M/DC CR. The polypeptide sequences are useful in isolating DNA clones encoding the chemokines, for generating antibodies, and for predicting oligonucleotides for screening a library to isolate species variants. A nucleic acid encoding a chemokine polypeptide can be used to identify genes, mRNA and cDNA species which encode related or homologous ligands, as well as DNA encoding homologous proteins from different species. The chemokines and antibodies which bind to the polypeptides are useful in the treatment of conditions associated with abnormal physiology or development, including inflammatory conditions such as asthma, abnormal proliferation, regeneration, degeneration and atrophy. This sequence represents the human chemokine receptor-2 (CKR-2) polypeptide, used in the scope of the invention

XX  
 SQ Sequence 374 AA;

Query Match 100.0%; Score 1970; DB 6; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 4.9e-215;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Db	1	MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Qy	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFVGNAMCKLFTGLY	120
Db	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFVGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Db	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Qy	361	GRAPEASLQDKEGA	374
Db	361	GRAPEASLQDKEGA	374

RESULT 4

ADD44861

ID. ADD44861 standard; protein; 374 AA.

XX

AC ADD44861;

XX

DT 29-JAN-2004 (first entry)

XX  
DE Human Protein P41597, SEQ ID NO 10292.  
XX  
KW Human; pain; neuronal tissue; gene therapy;  
KW spinal segmental nerve injury; chronic constriction injury; CCI;  
KW spared nerve injury; SNI; Chung.  
XX  
OS Homo sapiens.  
XX  
PN WO2003016475-A2.  
XX  
PD 27-FEB-2003.  
XX  
PF 14-AUG-2002; 2002WO-US025765.  
XX  
PR 14-AUG-2001; 2001US-0312147P.  
PR 01-NOV-2001; 2001US-0346382P.  
PR 26-NOV-2001; 2001US-0333347P.  
XX  
PA (GEHO ) GEN HOSPITAL CORP.  
PA (FARB ) BAYER AG.  
XX  
PI Woolf C, D'urso D, Befort K, Costigan M;  
XX  
DR WPI; 2003-268312/26.  
DR GENBANK; P41597.  
XX  
PT New composition comprising two or more isolated polypeptides, useful for  
PT preparing a medicament for treating pain in an animal.  
XX  
PS Claim 1; Page; 1017pp; English.  
XX  
CC The invention discloses a composition comprising two or more isolated rat  
CC or human polynucleotides or a polynucleotide which represents a fragment,  
CC derivative or allelic variation of the nucleic acid sequence. Also  
CC claimed are a vector comprising the novel polynucleotide, a host cell  
CC comprising the vector, a method for identifying a nucleotide sequence  
CC which is differentially regulated in an animal subjected to pain and a  
CC kit to perform the method, an array, a method for identifying an agent  
CC that increases or decreases the expression of the polynucleotide sequence  
CC that is differentially expressed in neuronal tissue of a first animal  
CC subjected to pain, a method for identifying a compound which regulates  
CC the expression of a polynucleotide sequence which is differentially  
CC expressed in an animal subjected to pain, a method for identifying a  
CC compound that regulates the activity of one or more of the  
CC polynucleotides, a method for producing a pharmaceutical composition, a  
CC method for identifying a compound or small molecule that regulates the  
CC activity in an animal of one or more of the polypeptides given in the  
CC specification, a method for identifying a compound useful in treating  
CC pain and a pharmaceutical composition comprising the one or more  
CC polypeptides or their antibodies. The polynucleotide or the compound that  
CC modulates its activity is useful for preparing a medicament for treating  
CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction  
CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene  
CC therapy). The sequence presented is a human protein (shown in Table 2 of  
CC the specification) which is differentially expressed during pain. Note:  
CC The sequence data for this patent did not form part of the printed

CC specification, but was obtained in electronic form directly from WIPO at  
CC ftp.wipo.int/pub/published\_pct\_sequences.  
XX  
SQ Sequence 374 AA;

Query Match 100.0%; Score 1970; DB 7; Length 374;  
Best Local Similarity 100.0%; Pred. No. 4.9e-215;  
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNEHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNEHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
      ||||||||||||||
Db    361 GRAPEASLQDKEGA 374
```

RESULT 5

ADD44865

ID ADD44865 standard; protein; 374 AA.

XX

AC ADD44865;

XX

DT 29-JAN-2004 (first entry)

XX

DE Human Protein P41597, SEQ ID NO 10296.

XX

KW Human; pain; neuronal tissue; gene therapy;

KW spinal segmental nerve injury; chronic constriction injury; CCI;

KW spared nerve injury; SNI; Chung.

XX

OS Homo sapiens.

XX

PN WO2003016475-A2.

XX

PD 27-FEB-2003.

XX  
PF 14-AUG-2002; 2002WO-US025765.  
XX  
PR 14-AUG-2001; 2001US-0312147P.  
PR 01-NOV-2001; 2001US-0346382P.  
PR 26-NOV-2001; 2001US-0333347P.  
XX  
PA (GEHO ) GEN HOSPITAL CORP.  
PA (FARB ) BAYER AG.  
XX  
PI Woolf C, D'urso D, Befort K, Costigan M;  
XX  
DR WPI; 2003-268312/26.  
DR GENBANK; P41597.  
XX  
PT New composition comprising two or more isolated polypeptides, useful for  
PT preparing a medicament for treating pain in an animal.  
XX  
PS Claim 1; Page; 1017pp; English.  
XX  
CC The invention discloses a composition comprising two or more isolated rat  
CC or human polynucleotides or a polynucleotide which represents a fragment,  
CC derivative or allelic variation of the nucleic acid sequence. Also  
CC claimed are a vector comprising the novel polynucleotide, a host cell  
CC comprising the vector, a method for identifying a nucleotide sequence  
CC which is differentially regulated in an animal subjected to pain and a  
CC kit to perform the method, an array, a method for identifying an agent  
CC that increases or decreases the expression of the polynucleotide sequence  
CC that is differentially expressed in neuronal tissue of a first animal  
CC subjected to pain, a method for identifying a compound which regulates  
CC the expression of a polynucleotide sequence which is differentially  
CC expressed in an animal subjected to pain, a method for identifying a  
CC compound that regulates the activity of one or more of the  
CC polynucleotides, a method for producing a pharmaceutical composition, a  
CC method for identifying a compound or small molecule that regulates the  
CC activity in an animal of one or more of the polypeptides given in the  
CC specification, a method for identifying a compound useful in treating  
CC pain and a pharmaceutical composition comprising the one or more  
CC polypeptides or their antibodies. The polynucleotide or the compound that  
CC modulates its activity is useful for preparing a medicament for treating  
CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction  
CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene  
CC therapy). The sequence presented is a human protein (shown in Table 2 of  
CC the specification) which is differentially expressed during pain. Note:  
CC The sequence data for this patent did not form part of the printed  
CC specification, but was obtained in electronic form directly from WIPO at  
CC ftp.wipo.int/pub/published\_pct\_sequences.  
XX  
SQ Sequence 374 AA;

Query Match 100.0%; Score 1970; DB 7; Length 374;  
Best Local Similarity 100.0%; Pred. No. 4.9e-215;  
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60  
|||||  
Db 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Db	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241	AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Db	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Qy	361	GRAPEASLQDKEGA	374
Db	361	GRAPEASLQDKEGA	374

RESULT 6

ADP65146

ID ADP65146 standard; protein; 374 AA.

XX

AC ADP65146;

XX

DT 12-AUG-2004 (first entry)

XX

DE Human chemokine (C-C motif) receptor 2, isoform A, chemokine (C-C).

XX

KW autoimmune disease; arthritide; gene expression analysis;

KW rheumatoid arthritis; collagen-induced; immunosuppressive; antirheumatic;

KW antiarthritic; osteopathic; antigout; antiinflammatory; dermatological;

KW immunomodulatory; lupus; ankylosing spondylitis; Fibrositis;

KW fibromyalgia; osteoarthritis; gout; juvenile rheumatoid arthritis;

KW immune; human.

XX

OS Homo sapiens.

XX

PN WO2003072827-A1.

XX

PD 04-SEP-2003.

XX

PF 31-OCT-2002; 2002WO-US035433.

XX

PR 31-OCT-2001; 2001US-0336220P.

XX

PA (CHIL-) CHILDREN'S HOSPITAL MEDICAL CENT.

XX

PI Hirsch R, Thorton SL;

XX

DR WPI; 2003-712740/67.  
 DR GENBANK; NP\_000638.  
 XX  
 PT Diagnosing and analyzing autoimmune disease using gene expression  
 PT profiles and microarray technology, useful for diagnosing and treating  
 PT rheumatoid arthritis, lupus, fibrositis, osteoarthritis, fibromyalgia and  
 PT gout.  
 XX  
 PS Disclosure; Page; 56pp; English.  
 XX  
 CC The invention relates to a novel method for diagnosing and analysing  
 CC autoimmune disease or arthritides. The method comprises obtaining a  
 CC patient sample containing mRNA, analysing gene expression using the mRNA  
 CC that results in a gene expression signature of the mRNA, and using that  
 CC gene expression signature to diagnose or analyse the autoimmune disease  
 CC or arthritides in the patient, where gene expression of at least 60% of  
 CC the genes correlates with that of the gene signature. The invention  
 CC further comprises: a treatment of rheumatoid arthritis; identification of  
 CC genes for targeting in the treatment of rheumatoid arthritis in a mammal  
 CC other than a mouse; diagnosis of rheumatoid arthritis in a mammal; an  
 CC array or gene chip, specific for rheumatoid arthritis; diagnosis or  
 CC analyses of autoimmune disease or rheumatoid arthritis; screening the  
 CC efficacy of a candidate drug in vitro for the treatment of collagen-  
 CC induced arthritis; and reducing the symptoms associated with collagen-  
 CC induced arthritis. The compositions of the invention have the following  
 CC activities: immunosuppressive, antirheumatic, antiarthritic, osteopathic,  
 CC antigout, antiinflammatory, dermatological, and immunomodulatory. The  
 CC methods and compositions of the present invention are useful for  
 CC diagnosing and treating autoimmune disease or arthritides, such as  
 CC rheumatoid arthritis, lupus, ankylosing spondylitis, fibrositis,  
 CC fibromyalgia, osteoarthritis, gout, juvenile rheumatoid arthritis, and an  
 CC immune disease caused by an infectious agent. This sequence represents a  
 CC protein sequence relating to the genes used in the analysis and treatment  
 CC of autoimmune diseases or arthritides. Note: This sequence is not shown  
 CC in the specification. It has been supplied in an electronic format from  
 CC WIPO.  
 XX  
 SQ Sequence 374 AA;

Query Match 100.0%; Score 1970; DB 7; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 4.9e-215;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
          |||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
          |||
Db     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
          |||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHR 240
          |||

```

Db 181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLLIMVICYSGILKTLRLCRNEKKRHR 240

Qy 241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300  
 |||

Db 241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy 301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360  
 |||

Db 301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy 361 GRAPEASLQDKEGA 374  
 |||

Db 361 GRAPEASLQDKEGA 374

RESULT 7

ADO29221

ID ADO29221 standard; protein; 374 AA.

XX

AC ADO29221;

XX

DT 29-JUL-2004 (first entry)

XX

DE Human GPCR CCR2, SEQ ID NO:322.

XX

KW G protein-coupled receptor; GPCR; drug screening; diagnosis;  
 KW transgenic mouse; neurological disorder; adrenal gland disorder;  
 KW colon disorder; intestinal disorder; cardiovascular disorder;  
 KW muscular disorder; blood disorder; immune disorder; bone disorder;  
 KW joint disorder; metabolic disorder; nutritive disorder; cancer;  
 KW kidney disorder; liver disorder; lung disorder; breast disorder;  
 KW ovary disorder; uterus disorder; prostate disorder; testis disorder;  
 KW skin disorder; stomach disorder; pancreas disorder; spleen disorder;  
 KW thymus disorder; thyroid disorder; antiparkinsonian; antimanic;  
 KW cytostatic; antiinflammatory; vasotropic; antianginal; antiarrhythmic;  
 KW CNS; central nervous system; respiratory; antidiarrhoeic; antidiabetic;  
 KW virucide; hepatotropic; antibacterial; antianaemic; antiseborrhoeic;  
 KW dermatological; antiulcer; antithyroid; antiallergic; anorectic;  
 KW immunosuppressive; nephrotropic; gene therapy; GPCR modulator; human;  
 KW receptor.

XX

OS Homo sapiens.

XX

PN WO2004040000-A2.

XX

PD 13-MAY-2004.

XX

PF 09-SEP-2003; 2003WO-US028226.

XX

PR 09-SEP-2002; 2002US-0409303P.

PR 09-APR-2003; 2003US-0461329P.

XX

PA (PRIM-) PRIMAL INC.

XX

PI Gaitanaris GA, Bergmann JE, Gragerov A, Hohmann J, Li F;

PI Madisen L, Mcilwain KL, Pavlova MN, Vassilatis D, Zeng H;

XX



Db	121	 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241	 AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Db	301	 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Qy	361	GRAPEASLQDKEGA	374
Db	361	 GRAPEASLQDKEGA	374

RESULT 8

ABG92881

ID ABG92881 standard; peptide; 344 AA.

XX

AC ABG92881;

XX

DT 19-NOV-2002 (first entry)

XX

DE Class I receptors WSXWS motif.

XX

KW Immunoglobulin; variable heavy chain; variable light chain; human;

KW G-protein chemokine receptor; CCR5; HDGMR10; cancer; inflammation;

KW immunologic deficiency syndrome; blood protein disorder; nephritis;

KW ataxia telangiectasia; endotoxin lethality; inflammatory bowel disease;

KW histiocytosis; chemotaxis; infectious disease; autoimmune disease;

KW Addison's disease; dermatitis; rheumatoid arthritis; allergy;

KW neurodegenerative disorder; viral infection; poxvirus infection; HIV;

KW human immunodeficiency virus; cytomegalovirus; Kaposi's sarcoma;

KW Pneumocystis carinii infection; cardiovascular disorder; atherosclerosis;  
lymphocytopenia.

XX

OS Synthetic.

XX

PN WO200264612-A2.

XX

PD 22-AUG-2002.

XX

PF 08-FEB-2002; 2002WO-US003634.

XX

PR 09-FEB-2001; 2001US-00779880.

PR 09-FEB-2001; 2001WO-US004153.

PR 12-JUN-2001; 2001US-0297257P.

PR 08-AUG-2001; 2001US-0310458P.

PR 12-OCT-2001; 2001US-0328447P.

PR 21-DEC-2001; 2001US-0341725P.

XX

PA (HUMA-) HUMAN GENOME SCI INC.

XX  
 PI Roschke V, Rosen CA, Ruben SM;  
 XX  
 DR WPI; 2002-643455/69.  
 XX  
 PT New human G-protein Chemokine Receptor gene (HDGNR10) useful for  
 PT treating, preventing, ameliorating or monitoring diseases or disorders  
 PT associated with aberrant expression of HDGNR10 e.g. cancer.  
 XX  
 PS Example 17; Page 386; 562pp; English.  
 XX  
 CC The invention describes an isolated polynucleotide encoding a first  
 CC antibody at least 95-100% identical to a second antibody consisting of an  
 CC amino acid sequence comprising at least one, two or three CDR regions of  
 CC a variable heavy (VH) or variable light (VL) domain of the antibody  
 CC expressed by a hybridoma cell line consisting of XF3.5F1, XF11.1F8,  
 CC XF3.6A2, XF3.10B8, XF22.3C9.6, XF22.9E6, XF27/28.7D5, XF27/28.18B5,  
 CC XF27/28.25G10, XF27/28.36A12, XF27/28.36F11 or XF27/28.43E2. The antibody  
 CC is useful treating, preventing, ameliorating, prognosing or monitoring  
 CC cancers or other diseases or disorders e.g. immunologic deficiency  
 CC syndromes such as blood protein disorders and ataxia telangiectasia,  
 CC inflammation associated disorders such as endotoxin lethality, nephritis  
 CC and inflammatory bowel disease, conditions associated with an increase in  
 CC certain haematopoietic cells such as histiocytosis, defective or aberrant  
 CC chemotaxis of immune cells or T-cell antigen presenting cell interaction,  
 CC an infectious disease, an autoimmune disease such as Addison's disease,  
 CC dermatitis and rheumatoid arthritis, allergies, a neurodegenerative  
 CC disorder, a viral infection e.g. HIV infection, cytomegalovirus or  
 CC poxvirus infection, a Pneumocystis carinii infection, Kaposi's sarcoma,  
 CC cardiovascular disorders such as atherosclerosis, lymphocytopenias, or a  
 CC disease or disorder associated with aberrant expression of novel human G-  
 CC protein chemokine receptor (CCR5) HDGNR10. This is the amino acid  
 CC sequence of the WSXWS motif found in class I receptors  
 XX  
 SQ Sequence 344 AA;

Query Match 92.5%; Score 1823; DB 5; Length 344;  
 Best Local Similarity 100.0%; Pred. No. 2.4e-198;  
 Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 18 EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 1 EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60  
 Qy 78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 120  
 Qy 138 RYLAIVHAVFALKARTVTFTGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 121 RYLAIVHAVFALKARTVTFTGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 180  
 Qy 198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLEWT 257  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 181 WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLEWT 240  
 Qy 258 PYNIVILLNTFQE FFGLSNCESTS QLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317

```

Db      241 PYNIVILLNTFFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 300
Qy      318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSG 361
Db      301 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSG 344

```

RESULT 9

ABU61655

ID ABU61655 standard; protein; 344 AA.

XX

AC ABU61655;

XX

DT 08-AUG-2003 (first entry)

XX

DE Human monocyte chemoattractant protein 1 (MCP-1) receptor.

XX

KW Human; G-protein chemokine receptor; receptor; HDGNR10; MCP-1;

KW 7-transmembrane receptor; monocyte chemoattractant protein 1.

XX

OS Homo sapiens.

XX

PN US2003023044-A1.

XX

PD 30-JAN-2003.

XX

PF 03-SEP-2002; 2002US-00232686.

XX

PR 06-JUN-1995; 95US-00466343.

PR 18-NOV-1998; 98US-00195662.

PR 25-JUN-1999; 99US-00339912.

XX

PA (HUMA-) HUMAN GENOME SCI INC.

XX

PI Li Y, Ruben SM;

XX

DR WPI; 2003-456307/43.

XX

PT Producing an antibody, involves immunizing an animal with a polypeptide

PT or with a polypeptide encoded by the human G-protein chemokine receptor

PT clone in ATCC 97183, and recovering the antibody.

XX

PS Disclosure; Fig 2; 23pp; English.

XX

CC The invention relates to a method of producing an antibody, involving  
CC immunising an animal with a human G-protein chemokine receptor (HDGNR10)  
CC polypeptide (also referred to as a human 7-transmembrane receptor) and  
CC recovering an antibody which binds the polypeptide. The method is useful  
CC for producing an antibody which binds specifically to the human G-protein  
CC chemokine receptor polypeptide. This sequence represents the monocyte  
CC chemoattractant protein 1 (MCP-1) receptor which shares homology with the  
CC HDGNR10 polypeptide of the invention

XX

SQ Sequence 344 AA;

Query Match

92.5%; Score 1823; DB 6; Length 344;

Best Local Similarity 100.0%; Pred. No. 2.4e-198;

Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      18 EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKCLKLT 77
        |||
Db      1  EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKCLKLT 60

Qy     78 DIYLLNLAISDLLFLITLPLWAHSAANEVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137
        |||
Db     61 DIYLLNLAISDLLFLITLPLWAHSAANEVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 120

Qy    138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197
        |||
Db    121 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 180

Qy    198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWT 257
        |||
Db    181 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWT 240

Qy    258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317
        |||
Db    241 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 300

Qy    318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKKSIG 361
        |||
Db    301 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKKSIG 344
```

RESULT 10

ADF72129

ID ADF72129 standard; protein; 344 AA.

XX

AC ADF72129;

XX

DT 12-FEB-2004 (first entry)

XX

DE Human G-protein chemokine receptor (CCR5) ligand MCP-1.

XX

KW cytostatic; CCR5 modulator; antibody; G-protein chemokine receptor; CCR5;

KW cancer detection; cancer diagnosis; cancer prognosis; cancer monitoring;

KW cancer; hyperproliferative disorder; human; HDG NR10; ligand; MCP-1.

XX

OS Homo sapiens.

XX

PN US2003166024-A1.

XX

PD 04-SEP-2003.

XX

PF 01-MAY-2002; 2002US-00135839.

XX

PR 09-FEB-2000; 2000US-0181258P.

PR 09-MAR-2000; 2000US-0187999P.

PR 22-SEP-2000; 2000US-0234336P.

PR 09-FEB-2001; 2001US-00779879.

XX

PA (HUMA-) HUMAN GENOME SCI INC.

XX

PI Rosen CA, Roschke V, Li Y, Ruben SM;  
 XX  
 DR WPI; 2003-898066/82.  
 XX  
 PT New polypeptide comprising domains of an antibody that binds G-protein  
 PT chemokine receptor CCR5 is useful to detect, diagnose, prognose or  
 PT monitor cancers and other hyperproliferative disorders and to treat or  
 PT prevent a disease or disorder.  
 XX  
 PS Disclosure; SEQ ID NO 9; 179pp; English.  
 XX  
 CC The invention describes a new isolated polynucleotide that encodes an  
 CC antibody (AB1) comprising an amino acid sequence of at least one, two or  
 CC three complementarity determining regions (CDR) of a heavy chain variable  
 CC (VH) domain of an antibody (AB2) that immunospecifically binds to a G-  
 CC protein chemokine receptor (CCR5), at least one, two or three CDR regions  
 CC of a light chain variable (VL) domain of AB2 or at least one, two or  
 CC three CDR regions of both a VH and a VL domain of AB2. The antibody is  
 CC useful for detecting, diagnosing, prognosing or monitoring cancers and  
 CC other hyperproliferative disorders and for treating, preventing or  
 CC ameliorating a disease or disorder. This is the amino acid sequence of  
 CC MCP-1, a ligand of human G protein chemokine receptor (CCR5) HDG NR10.  
 XX  
 SQ Sequence 344 AA;

Query Match 92.5%; Score 1823; DB 7; Length 344;  
 Best Local Similarity 100.0%; Pred. No. 2.4e-198;  
 Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	18	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKCLKLT	77
Db	1	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKCLKLT	60
Qy	78	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	137
Db	61	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	120
Qy	138	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	197
Db	121	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	180
Qy	198	WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLFWT	257
Db	181	WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLFWT	240
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	317
Db	241	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	300
Qy	318	IALGCRIAPLQKPVC GPGVRPGKNVKVTTQGLLDGRGKGKSIG	361
Db	301	IALGCRIAPLQKPVC GPGVRPGKNVKVTTQGLLDGRGKGKSIG	344

RESULT 11  
 ADP86217  
 ID ADP86217 standard; protein; 344 AA.

XX  
 AC ADP86217;  
 XX  
 DT 12-AUG-2004 (first entry)  
 XX  
 DE Human MCP-1 receptor protein.  
 XX  
 KW G-protein chemokine receptor; HDGNR10; CCR5; haematopoiesis;  
 KW wound healing; coagulation; angiogenesis; tumour; chronic infection;  
 KW leukaemia; T-cell mediated autoimmune diseases; parasitic infection;  
 KW psoriasis; allergy; anaphylaxis; atherogenesis; malignancy; inflammation;  
 KW prostaglandin-independent fever; bone marrow failure; silicosis;  
 KW sarcoidosis; rheumatoid arthritis; shock; hyper-eosinophilic syndrome;  
 KW human; MCP-1 receptor ; receptor.  
 XX  
 OS Homo sapiens.  
 XX  
 PN US6743594-B1.  
 XX  
 PD 01-JUN-2004.  
 XX  
 PF 11-FEB-2000; 2000US-00502784.  
 XX  
 PR 06-JUN-1995; 95US-00466343.  
 PR 18-NOV-1998; 98US-00195662.  
 XX  
 PA (HUMA-) HUMAN GENOME SCI INC.  
 XX  
 PI Li Y, Ruben SM;  
 XX  
 DR WPI; 2004-459648/43.  
 XX  
 PT Screening compounds binding to G-protein chemokine receptor HDGNR10,  
 PT involves contacting test compound with polypeptide of HDGRN10, and  
 PT observing binding of test compound to polypeptide.  
 XX  
 PS Disclosure; SEQ ID NO 9; 26pp; English.  
 XX  
 CC The invention relates to a method for screening compounds which bind the  
 CC G-protein chemokine receptor HDGNR10 (CCR5). Compounds identified by the  
 CC method of the invention are useful for stimulating haematopoiesis, wound  
 CC healing, coagulation, angiogenesis, for treating solid tumours, chronic  
 CC infections, leukaemia, T-cell mediated autoimmune diseases, parasitic  
 CC infections, psoriasis and for stimulating growth factor activity. The  
 CC compounds are also useful for treating allergy, anaphylaxis,  
 CC atherogenesis, malignancy, chronic and acute inflammation, histamine and  
 CC IgE-mediated allergic reactions, prostaglandin-independent fever, bone  
 CC marrow failure, silicosis, sarcoidosis, rheumatoid arthritis, shock and  
 CC hyper-eosinophilic syndrome. The present sequence is a human MCP-1  
 CC receptor protein. This sequence is used in the invention.  
 XX  
 SQ Sequence 344 AA;

Query Match 92.5%; Score 1823; DB 8; Length 344;  
 Best Local Similarity 100.0%; Pred. No. 2.4e-198;  
 Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	18	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKLKCLT	77
Db	1	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKLKCLT	60
Qy	78	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	137
Db	61	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	120
Qy	138	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	197
Db	121	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	180
Qy	198	WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT	257
Db	181	WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT	240
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	317
Db	241	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	300
Qy	318	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKKSIG	361
Db	301	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKKSIG	344

# RESULT 12

AAB46859

ID AAB46859 standard; protein; 329 AA.

XX

AC AAB46859;

XX

DT 16-AUG-2001 (revised)

DT 02-AUG-2001 (revised)

DT 04-MAY-2001 (first entry)

XX

DE Human MCP-1 receptor protein fragment.

XX

KW HDGNR10; human; G-protein chemokine receptor; antiinflammatory;  
 KW immunomodulatory; anticoagulant; antiallergic; immunosuppressive;  
 KW cytostatic; antiparasitic; antipsoriatic; antirheumatic; antiarthritic;  
 KW vasotropic; gene therapy; haematopoiesis; wound healing; coagulation;  
 KW angiogenesis; solid tumour; infection; leukemia; growth factor activity;  
 KW T-cell mediated autoimmune disease; psoriasis; allergy; atherogenesis;  
 KW anaphylaxis; malignancy; inflammation; histamine; IgE; silicosis; shock;  
 KW immunoglobulin E-mediated allergic reaction; rheumatoid arthritis;  
 KW prostaglandin-independent fever; bone marrow failure; sarcoidosis;  
 KW hyper-eosinophilic syndrome; vulnerable.

XX

OS Homo sapiens.

XX

PN US2001000241-A1.

XX

PD 12-APR-2001.

XX

PF 29-NOV-2000; 2000US-00725285.

XX

PR 06-JUN-1995; 95US-00466343.

PR 18-NOV-1998; 98US-00195662.

PR 25-JUN-1999; 99US-00339912.

XX

PA (LIYY/) LI Y.

PA (RUBE/) RUBEN S M.

XX

PI Li Y, Ruben SM;

XX

DR WPI; 2001-226317/23.

XX

PT New human G-protein chemokine receptor polypeptides and polynucleotides,  
PT useful for identifying (ant)agonists to the G-protein chemokine receptor.

XX

PS Disclosure; Page 16-17; 22pp; English.

XX

CC This invention describes a novel receptor polypeptide (I) selected from  
CC (i) a fully defined 329 amino acid sequence (II) fully disclosed in the  
CC specification; and (ii) a polypeptide encoded by the cDNA contained in a  
CC plasmid, and fragments, analogs and derivatives of the polypeptide. The  
CC products of the invention have antiinflammatory, immunomodulatory,  
CC anticoagulant, antiallergic, immunosuppressive, vulnerary, cytostatic,  
CC antiparasitic, antipsoriatic, antirheumatic, antiarthritic and vasotropic  
CC activity and can be used for gene therapy. The G-protein chemokine  
CC receptors, HDG NR10, (I) are useful for screening for compounds which  
CC activate or inhibit activation of (I). The products of the invention can  
CC also be used for stimulating haematopoiesis, wound healing, coagulation,  
CC angiogenesis, treating solid tumours, chronic infections, leukemia, T-  
CC cell mediated autoimmune diseases, parasitic infections, psoriasis, and  
CC stimulating growth factor activity. HDG NR10 is useful for treating  
CC allergy, atherogenesis, anaphylaxis, malignancy, chronic and acute  
CC inflammation, histamine and immunoglobulin E (IgE)-mediated allergic  
CC reactions, prostaglandin-independent fever, bone marrow failure,  
CC silicosis, sarcoidosis, rheumatoid arthritis, shock and hyper-  
CC eosinophilic syndrome. (N.B. This record was resubmitted to correct  
CC errors in the keyword formatting)

XX

SQ Sequence 329 AA;

Query Match 87.7%; Score 1727.5; DB 4; Length 329;

Best Local Similarity 95.6%; Pred. No. 1.7e-187;

Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

Qy 18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKCLKLT 77  
|||||

Db 1 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKCLKLT 60

Qy 78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLETGLYHIGYFGGIFFIILLTID 137  
|||||

Db 61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLETGLYHI----- 105

Qy 138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197  
|||||

Db 106 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 165

Qy 198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLEWT 257  
|||||

Db 166 WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLEWT 225

Qy 258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317  
 |||  
 Db 226 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 285  
 Qy 318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 361  
 |||  
 Db 286 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 329

RESULT 13

ABB81055

ID ABB81055 standard; protein; 329 AA.

XX

AC ABB81055;

XX

DT 05-NOV-2002 (first entry)

XX

DE Human MCP-1 receptor.

XX

KW 7-transmembrane receptor; G-protein coupled receptor; GPCR; HDGNR10;

KW G-protein chemokine receptor; haematopoietic; immunosuppressant;

KW antiparasitic; antipsoriatic; antiallergic; antiinflammatory; cytostatic;

KW antirheumatic; antiarthritic; gene therapy; human; MCP-1; receptor.

XX

OS Homo sapiens.

XX

PN US2002076745-A1.

XX

PD 20-JUN-2002.

XX

PF 18-NOV-1998; 98US-00195662.

XX

PR 06-JUN-1995; 95US-00466343.

XX

PA (LIYY/) LI Y.

PA (RUBE/) RUBEN S M.

XX

PI Li Y, Ruben SM;

XX

DR WPI; 2002-598724/64.

XX

PT New polynucleotide encoding a human G protein chemokine receptor HDGNR10,

PT useful e.g. for treating tumors.

XX

PS Example; Fig 2; 22pp; English.

XX

CC The invention relates to a novel human 7-transmembrane receptor, HDGNR10,

CC which has been identified as a G-protein chemokine receptor. The GPCR

CC HDGNR10 polypeptide can be expressed by standard recombinant methodology.

CC Compounds that activate or inhibit the receptor polypeptide, optionally

CC expressed from DNA in gene therapy vectors, are used to treat diseases

CC that require: (a) activation of the receptor (e.g. stimulation of

CC haematopoiesis, treatment of solid tumours, T-cell mediated autoimmune

CC diseases, parasitic infections, psoriasis etc.); or (b) inhibition of the

CC receptor (e.g. allergy, inflammation, rheumatoid arthritis, silicosis

CC etc). The present sequence represents a human MCP-1 receptor used in

CC comparison studies with the HDGNR10 receptor  
XX  
SQ Sequence 329 AA;

Query Match 87.7%; Score 1727.5; DB 5; Length 329;  
Best Local Similarity 95.6%; Pred. No. 1.7e-187;  
Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

```
Qy      18 EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKCLKLT 77
          |||
Db       1 EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKCLKLT 60

Qy      78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137
          |||
Db      61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHI----- 105

Qy     138 RYLAIVHAVFALKARTVTFTGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197
          |||
Db     106 RYLAIVHAVFALKARTVTFTGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 165

Qy     198 WNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLEWT 257
          |||
Db     166 WNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLEWT 225

Qy     258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317
          |||
Db     226 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 285

Qy     318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 361
          |||
Db     286 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 329
```

RESULT 14

AAR79166

ID AAR79166 standard; protein; 360 AA.

XX

AC AAR79166;

XX

DT 25-MAR-2003 (revised)

DT 29-DEC-1995 (first entry)

XX

DE Human monocyte chemoattractant protein-1 receptor MCP-1RB.

XX

KW Monocyte chemoattractant protein-1 receptor; MCR-1R; chemokine.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT Domain 1. .48

FT /label= extracellular

FT Domain 49. .70

FT /label= transmembrane

FT Domain 80. .700

FT /label= transmembrane

FT Domain 115. .136

FT /label= transmembrane

FT Domain 154. .178  
 FT /label= transmembrane  
 FT Domain 204. .231  
 FT /label= transmembrane  
 FT Domain 244. .268  
 FT /label= transmembrane  
 FT Domain 295. .313  
 FT /label= transmembrane  
 FT Region 314. .360  
 FT /label= carboxyl tail  
 XX  
 PN WO9519436-A1.  
 XX  
 PD 20-JUL-1995.  
 XX  
 PF 11-JAN-1995; 95WO-US000476.  
 XX  
 PR 13-JAN-1994; 94US-00182962.  
 XX  
 PA (REGC ) UNIV CALIFORNIA.  
 XX  
 PI Charo I, Coughlin S;  
 XX  
 DR WPI; 1995-263866/34.  
 DR N-PSDB; AAQ96298.  
 XX  
 PT DNA encoding monocyte chemo-attractant protein-1 receptor - used partic.  
 PT for identifying antagonists and for treating diseases characterised by  
 PT monocytic infiltrates.  
 XX  
 PS Claim 2; Fig 2; 84pp; English.  
 XX  
 CC To identify and clone new members of the chemokine receptor gene family,  
 CC degenerate oligo primers were designed corresp. to the conserved  
 CC sequences R79167 in the second and R79168 in the third transmembrane  
 CC domains of the MIP-1alpha/RANTES receptor, the IL-8 receptors and the  
 CC HUMSTRS orphan receptor (GenBank Accession #M99293. The degenerate oligo  
 CC incorporating EcoRI and XhoI sites at their 5' ends are Q96299 and  
 CC Q96300. Amplification of cDNA derived from MM6 cells with the primers  
 CC yielded a number of PCR products. One cDNA appeared to encode a novel  
 CC protein. To obtain a full-length version of this clone, a MM6 cDNA  
 CC library was constructed in pFROG and probed with the PCR product. A 2.1  
 CC kb cDNA clone was obtd. Analysis of additional clones in the MM6 cDNA  
 CC library revealed a second sequence that was identical to the 2.1 kb cDNA  
 CC sequence first obtd. from the 5' UTR through the putative seventh  
 CC transmembrane domain but contained a different cytoplasmic tail. The  
 CC second sequence appears to represent alternative splicing of the carboxyl  
 CC -terminal tail of the MCP-1R protein. The two sequences are denoted MCP-  
 CC 1RA and MCP-1RB (see Q96297/R79165 & Q96298/R79166). Active mature MCP-  
 CC 1RA has a predicted mol. wt. of about 42,000 daltons. MCP-1RB has a mol.  
 CC wt. of about 41,000 daltons. (Updated on 25-MAR-2003 to correct PN  
 CC field.)  
 XX  
 SQ Sequence 360 AA;

Query Match 83.8%; Score 1651.5; DB 2; Length 360;  
 Best Local Similarity 95.5%; Pred. No. 8.6e-179;

Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327
        |||||||||  |:|  ||  |:  |:
Db    301 NPIIYAFVGEKFRRYLSVFFRKHITKRECKQCPV 334
```

RESULT 15

AAW35833

ID AAW35833 standard; protein; 360 AA.

XX

AC AAW35833;

XX

DT 27-FEB-1998 (first entry)

XX

DE Human monocyte chemoattractant protein 1 receptor.

XX

KW Human; MCP-1; monocyte chemoattractant protein; receptor; tumour;

KW inflammatory disease; viral; allergy; diabetes.

XX

OS Homo sapiens.

XX

PN JP09238688-A.

XX

PD 16-SEP-1997.

XX

PF 11-MAR-1996; 96JP-00053574.

XX

PR 11-MAR-1996; 96JP-00053574.

XX

PA (TAKE ) TAKEDA CHEM IND LTD.

XX

DR WPI; 1997-506557/47.

DR N-PSDB; AAT96976.

XX

PT DNA encoding human monocyte chemoattractant protein 1 receptor - used to  
PT treat tumours and inflammatory, viral, infectious, allergic, diabetic and

PT central nervous system diseases.  
 XX  
 PS Disclosure; Page 12-14; 15pp; Japanese.  
 XX  
 CC The present sequence represents human monocyte chemoattractant protein 1  
 CC (MCP-1) receptor protein. The MCP-1 receptor protein and encoding DNA are  
 CC used for the prevention and treatment of tumours and inflammatory, viral,  
 CC infectious, allergic, diabetic and central nervous system diseases  
 XX  
 SQ Sequence 360 AA;

Query Match 83.8%; Score 1651.5; DB 2; Length 360;  
 Best Local Similarity 95.5%; Pred. No. 8.6e-179;  
 Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

Qy	1	MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Db	1	MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Qy	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Db	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLFWTPYNIIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241	AVRVIFTIMIVYFLFWTPYNIIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFR---SLF---HIALG-CRIAPL	327
		:      :	
Db	301	NPIIYAFVGEKFRRYLSVFFRKHITKRFCKQCPV	334

Search completed: January 24, 2005, 21:43:11  
 Job time : 115.079 secs

OM protein - protein search, using sw model

Run on: January 24, 2005, 21:37:00 ; Search time 28.0245 Seconds  
 (without alignments)  
 885.044 Million cell updates/sec

Title: US-10-791-166-2  
 Perfect score: 1970  
 Sequence: 1 MLSTSRSRFIRNTNESGEEV.....GKGKSIGRAPEASLQDKEGA 374

Scoring table: BLOSUM62  
 Gapop 10.0 , Gapext 0.5

Searched: 478139 seqs, 66318000 residues

Total number of hits satisfying chosen parameters: 478139

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : Issued Patents\_AA:\*  
 1: /cgn2\_6/ptodata/1/iaa/5A\_COMB.pep:\*  
 2: /cgn2\_6/ptodata/1/iaa/5B\_COMB.pep:\*  
 3: /cgn2\_6/ptodata/1/iaa/6A\_COMB.pep:\*  
 4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep:\*  
 5: /cgn2\_6/ptodata/1/iaa/PCTUS\_COMB.pep:\*  
 6: /cgn2\_6/ptodata/1/iaa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result		Query				Description
No.	Score	Match	Length	DB	ID	
1	1970	100.0	374	1	US-08-450-393A-2	Sequence 2, Appli
2	1970	100.0	374	3	US-08-446-669-2	Sequence 2, Appli
3	1970	100.0	374	4	US-10-039-659A-14	Sequence 14, Appl
4	1970	100.0	374	4	US-09-625-573-2	Sequence 2, Appli
5	1970	100.0	374	5	PCT-US95-00476-2	Sequence 2, Appli
6	1823	92.5	344	3	US-08-466-343D-9	Sequence 9, Appli
7	1823	92.5	344	4	US-09-502-784A-9	Sequence 9, Appli
8	1727.5	87.7	329	4	US-09-502-783A-9	Sequence 9, Appli
9	1727.5	87.7	329	4	US-09-339-912A-9	Sequence 9, Appli
10	1651.5	83.8	360	1	US-08-450-393A-4	Sequence 4, Appli
11	1651.5	83.8	360	3	US-08-446-669-4	Sequence 4, Appli

12	1651.5	83.8	360	3	US-09-045-583-50	Sequence 50, Appl
13	1651.5	83.8	360	4	US-09-534-185-50	Sequence 50, Appl
14	1651.5	83.8	360	4	US-09-131-827A-2	Sequence 2, Appli
15	1651.5	83.8	360	4	US-09-625-573-4	Sequence 4, Appli
16	1651.5	83.8	360	5	PCT-US95-00476-4	Sequence 4, Appli
17	1650.5	83.8	360	4	US-09-131-827A-20	Sequence 20, Appl
18	1645.5	83.5	360	4	US-08-833-752-7	Sequence 7, Appli
19	1645.5	83.5	360	4	US-09-938-719-7	Sequence 7, Appli
20	1614.5	82.0	360	3	US-09-045-583-51	Sequence 51, Appl
21	1614.5	82.0	360	4	US-09-534-185-51	Sequence 51, Appl
22	1589.5	80.7	347	1	US-08-461-244-3	Sequence 3, Appli
23	1236	62.7	352	3	US-09-517-605-5	Sequence 5, Appli
24	1234	62.6	354	3	US-08-724-984A-2	Sequence 2, Appli
25	1230	62.4	352	3	US-09-045-583-52	Sequence 52, Appl
26	1230	62.4	352	4	US-09-534-185-52	Sequence 52, Appl
27	1224	62.1	352	3	US-09-087-232A-13	Sequence 13, Appl
28	1224	62.1	352	3	US-08-861-105-14	Sequence 14, Appl
29	1224	62.1	352	3	US-08-575-967A-2	Sequence 2, Appli
30	1224	62.1	352	4	US-08-833-752-5	Sequence 5, Appli
31	1224	62.1	352	4	US-09-502-783A-2	Sequence 2, Appli
32	1224	62.1	352	4	US-09-796-202-1	Sequence 1, Appli
33	1224	62.1	352	4	US-09-938-719-5	Sequence 5, Appli
34	1224	62.1	352	4	US-09-502-784A-2	Sequence 2, Appli
35	1224	62.1	352	4	US-09-339-912A-2	Sequence 2, Appli
36	1224	62.1	352	4	US-08-771-276-2	Sequence 2, Appli
37	1224	62.1	352	4	US-08-771-276-20	Sequence 20, Appl
38	1215	61.7	352	3	US-08-466-343D-2	Sequence 2, Appli
39	967.5	49.1	355	1	US-08-012-988A-2	Sequence 2, Appli
40	967.5	49.1	355	1	US-08-450-393A-5	Sequence 5, Appli
41	967.5	49.1	355	3	US-08-446-669-5	Sequence 5, Appli
42	967.5	49.1	355	3	US-09-239-938-1	Sequence 1, Appli
43	967.5	49.1	355	4	US-09-886-319A-14	Sequence 14, Appl
44	967.5	49.1	355	4	US-10-039-659A-13	Sequence 13, Appl
45	967.5	49.1	355	4	US-09-961-068-1	Sequence 1, Appli

#### ALIGNMENTS

#### RESULT 1

US-08-450-393A-2

; Sequence 2, Application US/08450393A

; Patent No. 5707815

#### ; GENERAL INFORMATION:

; APPLICANT: Charo, Israel

; APPLICANT: Coughlin, Shaun

; TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT

; TITLE OF INVENTION: PROTEIN RECEPTORS

; NUMBER OF SEQUENCES: 14

#### ; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Cooley Godward Castro Huddleson & Tatum

; STREET: 5 Palo Alto Square

; CITY: Palo Alto

; STATE: California

; COUNTRY: USA

; ZIP: 94306-2155

; COMPUTER READABLE FORM:

```

; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/450,393A
; FILING DATE: May 25, 1995
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Cserr, Luann
; REGISTRATION NUMBER: 31,822
; REFERENCE/DOCKET NUMBER: UCAL-237/02US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-843-5165
; TELEFAX: 415-8857-0663
; TELEX: 380816CooleyPA
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 374 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-450-393A-2

```

```

Query Match          100.0%; Score 1970; DB 1; Length 374;
Best Local Similarity 100.0%; Pred. No. 4.1e-150;
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFNGAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFNGAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
        ||||||||||||
Db    361 GRAPEASLQDKEGA 374

```

RESULT 2  
 US-08-446-669-2  
 ; Sequence 2, Application US/08446669  
 ; Patent No. 6132987  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Charo, Israel  
 ; APPLICANT: Coughlin, Shaun  
 ; TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT  
 ; TITLE OF INVENTION: PROTEIN RECEPTORS  
 ; NUMBER OF SEQUENCES: 14  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Cooley Godward Castro Huddleson & Tatum  
 ; STREET: 5 Palo Alto Square  
 ; CITY: Palo Alto  
 ; STATE: California  
 ; COUNTRY: USA  
 ; ZIP: 94306-2155  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/446,669  
 ; FILING DATE: May 25, 1995  
 ; CLASSIFICATION: 435  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Neeley, Richard  
 ; REGISTRATION NUMBER: 30,092  
 ; REFERENCE/DOCKET NUMBER: UCAL-237/01US  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: 415-843-5000  
 ; TELEFAX: 415-857-0663  
 ; TELEX: 380816CooleyPA  
 ; INFORMATION FOR SEQ ID NO: 2:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 374 amino acids  
 ; TYPE: amino acid  
 ; TOPOLOGY: linear  
 ; MOLECULE TYPE: protein  
 US-08-446-669-2

Query Match 100.0%; Score 1970; DB 3; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 4.1e-150;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Db	1	MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Qy	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Db	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180

```

Qy      181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
          |||
Db      181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy      241 AVRVI FTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI 300
          |||
Db      241 AVRVI FTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI 300

Qy      301 NP IIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
          |||
Db      301 NP IIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy      361 GRAPEASLQDKEGA 374
          |||
Db      361 GRAPEASLQDKEGA 374

```

RESULT 3

US-10-039-659A-14

; Sequence 14, Application US/10039659A

; Patent No. 6723520

; GENERAL INFORMATION:

; APPLICANT: Wang, Wei

; APPLICANT: Gish, Kurt C.

; APPLICANT: Schall, Thomas J.

; APPLICANT: Vicari, Alain P.

; APPLICANT: Zlotnik, Albert

; TITLE OF INVENTION: Antibodies that bind chemokine TECK

; FILE REFERENCE: DX0589K1B US

; CURRENT APPLICATION NUMBER: US/10/039,659A

; CURRENT FILING DATE: 2002-01-03

; PRIOR APPLICATION NUMBER: US 08/887,977

; PRIOR FILING DATE: 1997-07-03

; PRIOR APPLICATION NUMBER: US 60/021,664

; PRIOR FILING DATE: 1996-07-05

; PRIOR APPLICATION NUMBER: US 60/028,329

; PRIOR FILING DATE: 1996-10-11

; PRIOR APPLICATION NUMBER: US 60/048,593

; PRIOR FILING DATE: 1997-06-04

; NUMBER OF SEQ ID NOS: 26

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 14

; LENGTH: 374

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-039-659A-14

Query Match 100.0%; Score 1970; DB 4; Length 374;

Best Local Similarity 100.0%; Pred. No. 4.1e-150;

Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSILVFIFGFVGN 60
          |||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSILVFIFGFVGN 60

Qy      61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

```

Db	61		MLVVLLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Qy	121		HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSTVITWLVAVFASVPGIIFTK	180
Db	121		HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSTVITWLVAVFASVPGIIFTK	180
Qy	181		CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181		CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241		AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241		AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301		NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Db	301		NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Qy	361		GRAPEASLQDKEGA	374
Db	361		GRAPEASLQDKEGA	374

RESULT 4

US-09-625-573-2

; Sequence 2, Application US/09625573

; Patent No. 6730301

; GENERAL INFORMATION:

; APPLICANT: Charo, Israel

; Coughlin, Shaun

; TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT  
; PROTEIN RECEPTORS

; NUMBER OF SEQUENCES: 14

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Cooley Godward Castro Huddleson & Tatum

; STREET: 5 Palo Alto Square

; CITY: Palo Alto

; STATE: California

; COUNTRY: USA

; ZIP: 94306-2155

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/625,573

; FILING DATE: 25-Jul-2000

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US/08/446,669

; FILING DATE: May 25, 1995

; ATTORNEY/AGENT INFORMATION:

; NAME: Neeley, Richard

; REGISTRATION NUMBER: 30,092

; REFERENCE/DOCKET NUMBER: UCAL-237/01US

```

; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-843-5000
; TELEFAX: 415-857-0663
; TELEX: 380816CooleyPA
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 374 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-09-625-573-2

```

```

Query Match          100.0%; Score 1970; DB 4; Length 374;
Best Local Similarity 100.0%; Pred. No. 4.1e-150;
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTQGLLDGRGKGKSI 360
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
        ||||||||||||||
Db    361 GRAPEASLQDKEGA 374

```

RESULT 5

PCT-US95-00476-2

; Sequence 2, Application PC/TUS9500476

; GENERAL INFORMATION:

```

; APPLICANT: The Regents of the University of California
; TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT
; TITLE OF INVENTION: PROTEIN RECEPTORS
; NUMBER OF SEQUENCES: 14
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Robbins, Berliner & Carson
; STREET: 201 N. Figueroa Street, 5th Floor

```

```

; CITY: Los Angeles
; STATE: California
; COUNTRY: USA
; ZIP: 90012-2628
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US95/00476
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Berliner, Robert
; REGISTRATION NUMBER: 20,121
; REFERENCE/DOCKET NUMBER: 5555-291
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 310-977-1001
; TELEFAX: 310-977-1003
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 374 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
PCT-US95-00476-2

```

```

Query Match          100.0%; Score 1970; DB 5; Length 374;
Best Local Similarity 100.0%; Pred. No. 4.1e-150;
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNEFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNEFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

```

Db 61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 120

Qy 138 RYLAI VHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197  
 |||  
 Db 121 RYLAI VHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 180  
 Qy 198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWT 257  
 |||  
 Db 181 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWT 240  
 Qy 258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317  
 |||  
 Db 241 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 300  
 Qy 318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 361  
 |||  
 Db 301 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 344

RESULT 7

US-09-502-784A-9

; Sequence 9, Application US/09502784A  
 ; Patent No. 6743594  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Li, Yi  
 ; APPLICANT: Ruben, Steven M.  
 ; TITLE OF INVENTION: Methods of Screening Using Human G-Protein  
 ; TITLE OF INVENTION: Chemokine Receptor HDG NR10 (CCR5)  
 ; FILE REFERENCE: 1488.1150005  
 ; CURRENT APPLICATION NUMBER: US/09/502,784A  
 ; CURRENT FILING DATE: 2000-02-11  
 ; PRIOR APPLICATION NUMBER: 09/195,662  
 ; PRIOR FILING DATE: 1998-11-18  
 ; PRIOR APPLICATION NUMBER: 08/466,343  
 ; PRIOR FILING DATE: 1995-06-06  
 ; NUMBER OF SEQ ID NOS: 9  
 ; SOFTWARE: PatentIn Version 3.1  
 ; SEQ ID NO 9  
 ; LENGTH: 344  
 ; TYPE: PRT  
 ; ORGANISM: Homo Sapiens  
 US-09-502-784A-9

Query Match 92.5%; Score 1823; DB 4; Length 344;  
 Best Local Similarity 100.0%; Pred. No. 2.2e-138;  
 Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77  
 |||  
 Db 1 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60  
 Qy 78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137  
 |||  
 Db 61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 120  
 Qy 138 RYLAI VHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197  
 |||  
 Db 121 RYLAI VHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 180

Qy	198	WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT	257
Db	181	WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT	240
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	317
Db	241	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	300
Qy	318	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	361
Db	301	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	344

RESULT 8

US-09-502-783A-9

```

; Sequence 9, Application US/09502783A
; Patent No. 6511826
; GENERAL INFORMATION:
; APPLICANT: Li, Yi
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Polynucleotides Encoding Human G-Protein Chemokine
Receptor (CCR5)
; TITLE OF INVENTION: HDGNR10
; FILE REFERENCE: 1488.1150006
; CURRENT APPLICATION NUMBER: US/09/502,783A
; CURRENT FILING DATE: 2001-08-23
; PRIOR APPLICATION NUMBER: 08/466,343
; PRIOR FILING DATE: 1995-06-06
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 329
; TYPE: PRT
; ORGANISM: Protein
US-09-502-783A-9

```

```

Query Match      87.7%; Score 1727.5; DB 4; Length 329;
Best Local Similarity 95.6%; Pred. No. 9.1e-131;
Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

```

Qy	18	EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT	77
Db	1	EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT	60
Qy	78	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	137
Db	61	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHI-----	105
Qy	138	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	197
Db	106	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	165
Qy	198	WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT	257
Db	166	WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT	225

```

Qy      258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317
          |||
Db      226 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 285

Qy      318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKKSIG 361
          |||
Db      286 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKKSIG 329

```

RESULT 9

US-09-339-912A-9

```

; Sequence 9, Application US/09339912A
; Patent No. 6759519
; GENERAL INFORMATION:
; APPLICANT: Li, Yi
; APPLICANT: Ruben, Steven, M.
; TITLE OF INVENTION: Antibodies to Human G-Protein Chemokine Receptor
HDGNR10
; TITLE OF INVENTION: (CCR5 Receptor)
; FILE REFERENCE: 1488.1150003
; CURRENT APPLICATION NUMBER: US/09/339,912A
; CURRENT FILING DATE: 1999-06-25
; PRIOR APPLICATION NUMBER: 09/195,662
; PRIOR FILING DATE: 1998-11-18
; PRIOR APPLICATION NUMBER: 08/466,343
; PRIOR FILING DATE: 1995-06-06
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 329
; TYPE: PRT
; ORGANISM: Protein
US-09-339-912A-9

```

```

Query Match      87.7%; Score 1727.5; DB 4; Length 329;
Best Local Similarity 95.6%; Pred. No. 9.1e-131;
Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

```

```

Qy      18 EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77
          |||
Db      1  EEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60

Qy      78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137
          |||
Db      61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHI----- 105

Qy      138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197
          |||
Db      106 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 165

Qy      198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT 257
          |||
Db      166 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT 225

Qy      258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317
          |||
Db      226 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 285

```

[illegible]

RESULT 10

US-08-450-393A-4

; Sequence 4, Application US/08450393A

; Patent No. 5707815

## ; GENERAL INFORMATION:

APPLICANT: Charo, Israel

; APPLICANT: Coughlin, Shaun

; TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT

; TITLE OF INVENTION: PROTEIN RECEPTORS

; NUMBER OF SEQUENCES: 14

## CORRESPONDENCE ADDRESS:

ADDRESSEE: Cooley Godward Castro Huddleson & Tatum

```
; STREET: 5 Palo Alto Square
```

; CITY: Palo Alto

; STATE: California

; COUNTRY: USA

; ZIP: 94306-2155

## ; COMPUTER READABLE FORM:

```
; MEDIUM TYPE: Floppy disk
```

```
;      COMPUTER:  IBM PC compatible
```

; OPERATING SYSTEM: PC-DOS/MS-DOS

```
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
```

```
; CURRENT APPLICATION DATA:
```

; APPLICATION NUMBER: US/08/450,393A

; FILING DATE: May 25, 1995

; CLASSIFICATION: 424

## ; ATTORNEY/AGENT INFORMATION:

NAME: Cserr, Luann

; REGISTRATION NUMBER: 31,822

REFERENCE/DOCKET NUMBER: UCAL-237/02US

## ; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-843-5165

TELEFAX: 415-8857-0663

; TELEX: 380816CooleyPA

; INFORMATION FOR SEQ ID NO: 4:

## ; SEQUENCE CHARACTERISTICS:

; LENGTH: 360 amino acids

; TYPE: amino acid

```
;      TOPOLOGY:  linear
```

```
; MOLECULE TYPE:  protein
```

US-08-450-393A-4

Query Match 83.8%; Score 1651.5; DB 1; Length 360;

Best Local Similarity 95.5%; Pred. No. 1.2e-124;

Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

Ov 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKOIGAOLLPPLYSLVFIFGFVGN 60

\_\_\_\_\_

Db 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy 61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Db	61	MLVVLLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWNNEFTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	CQKEDSVYVCGPYFPRGWNNEFTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFR---SLF---HIALG-CRIAPL	327
Db	301	NPIIYAFVGEKFRRLSVFFRKHITKRECKQCPV	334

RESULT 11

US-08-446-669-4

; Sequence 4, Application US/08446669

; Patent No. 6132987

; GENERAL INFORMATION:

; APPLICANT: Charo, Israel

; APPLICANT: Coughlin, Shaun

; TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT

; TITLE OF INVENTION: PROTEIN RECEPTORS

; NUMBER OF SEQUENCES: 14

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Cooley Godward Castro Huddleson & Tatum

; STREET: 5 Palo Alto Square

; CITY: Palo Alto

; STATE: California

; COUNTRY: USA

; ZIP: 94306-2155

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/446,669

; FILING DATE: May 25, 1995

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

; NAME: Neeley, Richard

; REGISTRATION NUMBER: 30,092

; REFERENCE/DOCKET NUMBER: UCAL-237/01US

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-843-5000

; TELEFAX: 415-857-0663

; TELEX: 380816CooleyPA

; INFORMATION FOR SEQ ID NO: 4:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 360 amino acids

```
;      TYPE:   amino acid
;      TOPOLOGY: linear
;      MOLECULE TYPE:  protein
US-08-446-669-4
```

```

Query Match      83.8%;   Score 1651.5;   DB 3;   Length 360;
Best Local Similarity 95.5%;   Pred. No. 1.2e-124;
Matches 319;   Conservative      3;   Mismatches      5;   Indels      7;   Gaps      3;

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy      61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY 120

Qy      121 HIGYFGGIIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      121 HIGYFGGIIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy      181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHR 240
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHR 240

Qy      241 AVRVIIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      241 AVRVIIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy      301 NP IIYAFVGEKFR---SLF---HIALG-CRIAPL 327
      |||||||||  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
Db      301 NP IIYAFVGEKFRRYLSVFFRKHITKRFCKQCPV 334

```

```

RESULT 12
US-09-045-583-50
; Sequence 50, Application US/09045583
; Patent No. 6287805
; GENERAL INFORMATION:
; APPLICANT: Graham, Gerard J. et al.
; TITLE OF INVENTION: No. 6287805el Molecules of the G Protein-Coupled
; NUMBER OF SEQUENCES: 56
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LAHIVE & COCKFIELD, LLP
; STREET: 28 State Street
; CITY: Boston
; STATE: Massachusetts
; COUNTRY: USA
; ZIP: 02109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/045,583
; FILING DATE: 20-MAR-98

```

```

; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Mandragouras, Amy E.
; REGISTRATION NUMBER: 36,207
; REFERENCE/DOCKET NUMBER: MNI-044
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617)227-7400
; TELEFAX: (617)742-4214
; INFORMATION FOR SEQ ID NO: 50:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 360 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FRAGMENT TYPE: internal
US-09-045-583-50

```

```

Query Match          83.8%; Score 1651.5; DB 3; Length 360;
Best Local Similarity 95.5%; Pred. No. 1.2e-124;
Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
      |||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
      |||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVT SVITWLVAVFASVPGIIFTK 180
      |||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVT SVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
      |||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVI FTIMIVYFLEWTPYNI VILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI 300
      |||
Db    241 AVRVI FTIMIVYFLEWTPYNI VILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327
      |||
Db    301 NPIIYAFVGEKFRRLYLSVFFRKHITKRECKQCPV 334

```

# RESULT 13

US-09-534-185-50

; Sequence 50, Application US/09534185

; Patent No. 6403767

; GENERAL INFORMATION:

; APPLICANT: Graham, Gerard J. et al.

; TITLE OF INVENTION: No. 6403767el Molecules of the G Protein-Coupled  
; Heptahelical Receptor Superfamily and Uses

```

;                                     Therefor
;
;   NUMBER OF SEQUENCES: 56
;   CORRESPONDENCE ADDRESS:
;       ADDRESSEE: LAHIVE & COCKFIELD, LLP
;       STREET: 28 State Street
;       CITY: Boston
;       STATE: Massachusetts
;       COUNTRY: USA
;       ZIP: 02109
;   COMPUTER READABLE FORM:
;       MEDIUM TYPE: Floppy disk
;       COMPUTER: IBM PC compatible
;       OPERATING SYSTEM: PC-DOS/MS-DOS
;       SOFTWARE: PatentIn Release #1.0, Version #1.25
;   CURRENT APPLICATION DATA:
;       APPLICATION NUMBER: US/09/534,185
;       FILING DATE: 24-Mar-2000
;       CLASSIFICATION: <Unknown>
;   PRIOR APPLICATION DATA:
;       APPLICATION NUMBER: 09/045,583
;       FILING DATE: <Unknown>
;   ATTORNEY/AGENT INFORMATION:
;       NAME: Mandragouras, Amy E.
;       REGISTRATION NUMBER: 36,207
;       REFERENCE/DOCKET NUMBER: MNI-044
;   TELECOMMUNICATION INFORMATION:
;       TELEPHONE: (617)227-7400
;       TELEFAX: (617)742-4214
;   INFORMATION FOR SEQ ID NO: 50:
;       SEQUENCE CHARACTERISTICS:
;           LENGTH: 360 amino acids
;           TYPE: amino acid
;           TOPOLOGY: linear
;       MOLECULE TYPE: peptide
;       FRAGMENT TYPE: internal
;       SEQUENCE DESCRIPTION: SEQ ID NO: 50:
US-09-534-185-50

```

```

Query Match          83.8%;   Score 1651.5;   DB 4;   Length 360;
Best Local Similarity 95.5%;   Pred. No. 1.2e-124;
Matches 319;   Conservative 3;   Mismatches 5;   Indels 7;   Gaps 3;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFDDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHR 240

```

```

Qy      241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy      301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327
        |||||||||||| |:|| || |:||
Db      301 NPIIYAFVGEKFRRYLSVFFRKHITKRFCKQCPV 334

```

RESULT 14

US-09-131-827A-2

```

; Sequence 2, Application US/09131827A
; Patent No. 6600030
; GENERAL INFORMATION:
; APPLICANT: Dean, Michael
; APPLICANT: O'Brien, Stephen J.
; APPLICANT: Smith, Michael
; APPLICANT: Carrington, Mary
; TITLE OF INVENTION: DELAYED PROGRESSION TO AIDS BY A
; TITLE OF INVENTION: MISSENSE ALLELE OF THE CCR2 GENE
; FILE REFERENCE: 14014.0333
; CURRENT APPLICATION NUMBER: US/09/131,827A
; CURRENT FILING DATE: 1998-08-10
; PRIOR APPLICATION NUMBER: 60/055,659
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 360
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-131-827A-2

```

```

Query Match      83.8%; Score 1651.5; DB 4; Length 360;
Best Local Similarity 95.5%; Pred. No. 1.2e-124;
Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy      61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY 120

Qy      121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy      181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy      241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

```

Qy 301 NPITYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 ||||| | | | | | | | | | | | | : | | | : | :  
 Db 301 NPITYAFVGEKFRRLSVFFRKHITKRFCKQCPV 334

RESULT 15

US-09-625-573-4

; Sequence 4, Application US/09625573

; Patent No. 6730301

## ; GENERAL INFORMATION:

; APPLICANT: Charo, Israel

; Coughlin, Shaun

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218  
219  
220  
221  
222  
223  
224  
225  
226  
227  
228  
229  
230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274  
275  
276  
277  
278  
279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445  
446  
447  
448  
449  
450  
451  
452  
453  
454  
455  
456  
457  
458  
459  
460  
461  
462  
463  
464  
465  
466  
467  
468  
469  
470  
471  
472  
473  
474  
475  
476  
477  
478  
479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491  
492  
493  
494  
495  
496  
497  
498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
84

```
;          NUMBER OF SEQUENCES: 14
```

CORRESPONDENCE ADDRESS:

; ADDRESSEE: Cooley Godward Castro Huddleson & Tatum

```
; STREET: 5 Palo Alto Square
```

; CITY: Palo Alto

```
; STATE: California
```

; COUNTRY: USA

; ZIP: 94306-2155

COMPUTER READABLE FORM:

```
;          MEDIUM TYPE: Floppy disk
```

```
;          COMPUTER: IBM PC compatible
```

```
; OPERATING SYSTEM: PC-DOS/MS-DOS
```

```
; SOFTWARE: PatentIn Release #1.0, Version #1.25
```

```

; CURRENT APPLICATION DATA:

```

APPLICATION NUMBER: US/09/625,573

; FILING DATE: 25-Jul-2000

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US/08/446,669

; FILING DATE: May 25, 1995

; ATTORNEY/AGENT INFORMATION:

; NAME: Neeley, Richard

; REGISTRATION NUMBER: 30,092

; REFERENCE/DOCKET NUMBER: UCAL-237/01US

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-843-5000

TELEFAX: 415-857-0663

; TELEX: 380816CooleyPA

```
; INFORMATION FOR SEQ ID NO: 4:
```

; SEQUENCE CHARACTERISTICS:

; LENGTH: 360 amino acids

```
;          TYPE: amino acid
```

```
; TOPOLOGY: linear
```

```
; MOLECULE TYPE: protein
```

```

; SEQUENCE DESCRIPTION: SEQ ID NO: 4:

```

US-09-625-573-4

Query Match 83.8%; Score 1651.5; DB 4; Length 360;

Best Local Similarity 95.5%; Pred. No. 1.2e-124;

Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

Qv 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

```

Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGN 60
Qy      61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
Db      61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
Qy     121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
Db     121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
Qy     181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
Db     181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
Qy     241 AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
Db     241 AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
Qy     301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327
Db     301 NPIIYAFVGEKFRRYLSVFFRKHITKRECKQCPV 334

```

Search completed: January 24, 2005, 21:49:29  
Job time : 30.0245 secs

OM protein - protein search, using sw model

Run on: January 24, 2005, 21:36:30 ; Search time 25.4768 Seconds  
(without alignments)  
1412.462 Million cell updates/sec

Title: US-10-791-166-2  
Perfect score: 1970  
Sequence: 1 MLSTSRSRFIRNTNESGEEV.....GKGKSIGRAPEASLQDKEGA 374

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : PIR\_79:\*  
1: pir1:\*  
2: pir2:\*  
3: pir3:\*  
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result Nó.	% Query		Length	DB	ID	Description
	Score	Match				
1	1970	100.0	374	2	I38450	chemokine (C-C) re
2	1651.5	83.8	360	2	JC2443	chemokine (C-C) re
3	1224	62.1	352	2	A43113	chemokine (C-C) re
4	967.5	49.1	355	2	A45177	chemokine (C-C) re
5	960	48.7	359	2	I49341	MIP-1 alpha recept
6	902.5	45.8	355	2	I49339	macrophage inflamm
7	890.5	45.2	355	2	G02436	chemokine (C-C) re
8	833	42.3	360	2	JC4587	chemokine (C-C) re
9	831.5	42.2	360	2	A57160	chemokine (C-C) re
10	794.5	40.3	383	2	S55594	G protein-coupled
11	731	37.1	356	2	I49340	MIP-1 alpha recept
12	723	36.7	355	2	JC5067	G protein-coupled
13	704.5	35.8	354	2	I58186	probable G protein

14	698	35.4	355	2	JC4304	orphan G protein-c
15	644.5	32.7	344	2	JC5942	chemokine receptor
16	584	29.6	378	2	B55735	lymphocyte-specifi
17	575.5	29.2	378	2	A55735	G protein-coupled
18	570	28.9	378	2	A45680	G protein-coupled
19	554.5	28.1	369	2	JC5068	G protein-coupled
20	541.5	27.5	360	2	A53611	interleukin-8 rece
21	537	27.3	359	2	A48921	interleukin-8 rece
22	531	27.0	352	2	G00048	fusin (LESTRA) - c
23	530.5	26.9	353	2	S28787	neuropeptide Y/pep
24	529.5	26.9	355	2	JQ1231	interleukin-8 rece
25	528	26.8	352	2	A45747	neuropeptide Y/pep
26	526	26.7	358	2	A53752	interleukin-8 rece
27	526	26.7	367	2	JE0349	interferon-inducib
28	524.5	26.6	350	2	A39445	interleukin-8 rece
29	523	26.5	356	2	S42096	interleukin-8 rece
30	519	26.3	333	2	I65989	G protein-coupled
31	484	24.6	350	2	JN0621	G protein-coupled
32	480	24.4	359	2	A42656	angiotensin II rec
33	479.5	24.3	374	2	S42628	G protein-coupled
34	475	24.1	359	2	I51372	angiotensin II rec
35	473	24.0	359	2	JC2134	angiotensin II rec
36	472	24.0	359	2	JH0621	angiotensin II rec
37	471	23.9	359	2	S15403	angiotensin II rec
38	471	23.9	359	2	JQ1516	angiotensin II rec
39	469	23.8	359	2	JC1104	angiotensin II rec
40	468	23.8	359	2	S44425	angiotensin II rec
41	465	23.6	359	2	JC1194	angiotensin II rec
42	465	23.6	374	2	S32785	G protein-coupled
43	464	23.6	359	2	A48857	angiotensin II rec
44	461.5	23.4	372	2	S26667	G protein-coupled
45	460.5	23.4	327	2	S56162	MDCR15 protein - h

#### ALIGNMENTS

##### RESULT 1

I38450

chemokine (C-C) receptor 2, splice form A - human

N;Alternate names: C-C CKR-2; monocyte chemoattractant protein 1 receptor;

monocyte chemotactin 1 receptor

C;Species: Homo sapiens (man)

C;Date: 16-Feb-1996 #sequence\_revision 16-Feb-1996 #text\_change 09-Jul-2004

C;Accession: I38450

R;Charo, I.F.; Myers, S.J.; Herman, A.; Franci, C.; Connolly, A.J.; Coughlin, S.R.

Proc. Natl. Acad. Sci. U.S.A. 91, 2752-2756, 1994

A;Title: Molecular cloning and functional expression of two monocyte chemoattractant protein 1 receptors reveals alternate splicing of the carboxyl-terminal tails.

A;Reference number: A53477; MUID:94195821; PMID:8146186

A;Accession: I38450

A;Status: preliminary

A;Molecule type: mRNA

A;Residues: 1-374 <RES>

A;Cross-references: UNIPROT:P41597; EMBL:U03882; NID:g472555; PIDN:AAA19119.1;  
 PID:g472556  
 C;Genetics:  
 A;Gene: GDB:CMKBR2  
 A;Cross-references: GDB:337364; OMIM:601267  
 A;Map position: 3p21-3p21  
 C;Superfamily: vertebrate rhodopsin  
 C;Keywords: alternative splicing; G protein-coupled receptor; glycoprotein;  
 transmembrane protein  
 F;44-68/Domain: transmembrane #status predicted <TM1>  
 F;79-99/Domain: transmembrane #status predicted <TM2>  
 F;115-136/Domain: transmembrane #status predicted <TM3>  
 F;154-178/Domain: transmembrane #status predicted <TM4>  
 F;208-226/Domain: transmembrane #status predicted <TM5>  
 F;244-265/Domain: transmembrane #status predicted <TM6>  
 F;292-309/Domain: transmembrane #status predicted <TM7>  
 F;14/Binding site: carbohydrate (Asn) (covalent) #status predicted  
 F;32-277,113-190/Disulfide bonds: #status predicted

Query Match 100.0%; Score 1970; DB 2; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 1e-164;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Db	1	MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Qy	61	MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Db	61	MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVT SVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVT SVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWN NFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	CQKEDSVYVCGPYFPRGWN NFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI	300
Db	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Db	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Qy	361	GRAPEASLQDKEGA	374
Db	361	GRAPEASLQDKEGA	374

# RESULT 2

JC2443

chemokine (C-C) receptor 2, splice form B - human

N;Alternate names: C-C CKR-2; monocyte chemoattractant protein 1 receptor;  
 monocyte chemotactin 1 receptor



Qy 181 CQKEDSVYVCGPYFPRGWNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240  
 |||  
 Db 181 CQKEDSVYVCGPYFPRGWNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy 241 AVRVI FTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI 300  
 |||  
 Db 241 AVRVI FTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCI 300

Qy 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 ||| ||| ||| |||  
 Db 301 NPIIYAFVGEKFRRYLSVFFRKHITKRECKQCPV 334

# RESULT 3

A43113

chemokine (C-C) receptor 5 - human

N;Alternate names: C-C CKR-5; CCR5

C;Species: Homo sapiens (man)

C;Date: 12-Jul-1996 #sequence\_revision 12-Jul-1996 #text\_change 20-Jun-2000

C;Accession: A43113; S71808; A58834; A58832; G02653; A58833

R;Samson, M.; Labbe, O.; Mollereau, C.; Vassart, G.; Parmentier, M.

Biochemistry 35, 3362-3367, 1996

A;Title: Molecular cloning and functional expression of a new human CC-chemokine receptor gene.

A;Reference number: A43113; MUID:96241590; PMID:8639485

A;Accession: A43113

A;Molecule type: mRNA

A;Residues: 1-352 <SAM1>

A;Cross-references: GB:X91492; NID:g1262810; PIDN:CAA62796.1; PID:g1262811

R;Samson, M.; Libert, F.; Doranz, B.J.; Rucker, J.; Liesnard, C.; Farber, C.M.; Saragosti, S.; Lapoumeroulie, C.; Cognaux, J.; Forceille, C.; Muyldermans, G.; Verhofstede, C.; Burtonboy, G.; Georges, M.; Imai, T.; Rana, S.; Yi, Y.; Smyth, R.J.; Collman, R.G.; Doms, R.W.; Vassart, G.; Parmentier, M.

Nature 382, 722-725, 1996

A;Title: Resistance to HIV-1 infection in caucasian individuals bearing mutant alleles of the CCR-5 chemokine receptor gene.

A;Reference number: S71808; MUID:96345670; PMID:8751444

A;Accession: S71808

A;Status: nucleic acid sequence not shown; not compared with conceptual translation

A;Molecule type: DNA

A;Residues: 182-206;207-230 <SAM2>

A;Accession: A58834

A;Status: nucleic acid sequence not shown; not compared with conceptual translation

A;Molecule type: DNA

A;Residues: 1-184,'IKDSHLGAGPAAACHGHLLLG NPKNSASVSK' <SAM3>

A;Cross-references: GB:X99393; NID:g1524062; PIDN:CAA67767.1; PID:g1524063

A;Note: this frameshift mutation results in a non-functional receptor but confers a degree of resistance to HIV-1 infection; it has an allele frequency of 0.09 or more in some caucasian populations and may have had a selective advantage by conferring resistance to Yersinia plague infections

R;Combadiere, C.; Ahuja, S.K.; Tiffany, H.L.; Murphy, P.M.

J. Leukoc. Biol. 60, 147-152, 1996.

A;Title: Cloning and functional expression of CC CKR5, a human monocyte CC chemokine receptor selective for MIP-1alpha, MIP-1beta, and RANTES.

A;Reference number: A58832; MUID:96295970; PMID:8699119  
 A;Accession: A58832  
 A;Molecule type: mRNA  
 A;Residues: 1-352 <COM1>  
 A;Cross-references: GB:U57840; NID:g1502408; PIDN:AAB17071.1; PID:g1502409  
 A;Experimental source: clone 8, endotoxin-stimulated peripheral blood monocytes  
 R;Combadiere, C.  
 submitted to the EMBL Data Library, May 1996  
 A;Reference number: H01541  
 A;Accession: G02653  
 A;Status: translated from GB/EMBL/DDBJ  
 A;Molecule type: mRNA  
 A;Residues: 1-89,'L',91-352 <COM2>  
 A;Cross-references: EMBL:U57840  
 R;Raport, C.J.; Gosling, J.; Schweickart, V.L.; Gray, P.W.; Charo, I.F.  
 J. Biol. Chem. 271, 17161-17166, 1996  
 A;Title: Molecular cloning and functional characterization of a novel human CC  
 chemokine receptor (CCR5) for RANTES, MIP-1beta, and MIP-1alpha.  
 A;Reference number: A58833; MUID:96291862; PMID:8663314  
 A;Accession: A58833  
 A;Molecule type: mRNA  
 A;Residues: 1-352 <RAP>  
 A;Cross-references: GB:U54994; NID:g1457945; PIDN:AAC50598.1; PID:g1457946  
 C;Comment: This is a receptor for chemokines MIP-1alpha (see PIR:A30574), MIP-  
 1beta (see PIR:A31767), and RANTES (see PIR:A28815).  
 C;Comment: Macrophage- and dual-tropic strains of HIV-1 bind to a complex of  
 chemokine (C-C) receptor 5 and T-cell surface glycoprotein CD4 (see PIR:RWHUT4).  
 C;Genetics:  
 A;Gene: GDB:CMKBR5; CCR5; CKR-5; CC-CKR-5; CKR5; ChemR13  
 A;Cross-references: GDB:1230510; OMIM:601373  
 A;Map position: 3p21-3p21  
 C;Function:  
 A;Description: G protein-coupled receptor for chemokines MIP-1alpha, MIP-1beta  
 and RANTES  
 A;Note: probably acts to control granulocyte proliferation and differentiation  
 C;Superfamily: vertebrate rhodopsin  
 C;Keywords: AIDS; G protein-coupled receptor; glycoprotein; phosphoprotein;  
 transmembrane protein  
 F;32-56/Domain: transmembrane #status predicted <TM1>  
 F;67-87/Domain: transmembrane #status predicted <TM2>  
 F;103-124/Domain: transmembrane #status predicted <TM3>  
 F;142-166/Domain: transmembrane #status predicted <TM4>  
 F;193-218/Domain: transmembrane #status predicted <TM5>  
 F;236-257/Domain: transmembrane #status predicted <TM6>  
 F;285-300/Domain: transmembrane #status predicted <TM7>  
 F;20-269,101-178/Disulfide bonds: #status predicted  
 F;268/Binding site: carbohydrate (Asn) (covalent) #status predicted  
 F;336,337,342/Binding site: phosphate (Ser) (covalent) #status predicted  
 F;340,343/Binding site: phosphate (Thr) (covalent) #status predicted

Query Match 62.1%; Score 1224; DB 2; Length 352;  
 Best Local Similarity 76.3%; Pred. No. 1.8e-99;  
 Matches 235; Conservative 27; Mismatches 34; Indels 12; Gaps 3;

Qy 24 FDYDY--GAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKCLKLTDIYL 81  
 :|:| |||:|||||:|||||:|||||:|||||:|||||  
 Db 10 YDINYYTSEPCQKINVKQIAARLLPPLYSLVFIFGFVGNMLVILILINCKRLKSMTDIYL 69

C;Superfamily: vertebrate rhodopsin

C;Keywords: disulfide bond; G protein-coupled receptor; glycoprotein; phosphoprotein; transmembrane protein  
 F;36-60/Domain: transmembrane #status predicted <TM1>  
 F;71-91/Domain: transmembrane #status predicted <TM2>  
 F;108-129/Domain: transmembrane #status predicted <TM3>  
 F;147-171/Domain: transmembrane #status predicted <TM4>  
 F;205-223/Domain: transmembrane #status predicted <TM5>  
 F;240-264/Domain: transmembrane #status predicted <TM6>  
 F;288-305/Domain: transmembrane #status predicted <TM7>  
 F;5/Binding site: carbohydrate (Asn) (covalent) #status predicted  
 F;24-273,106-183/Disulfide bonds: #status predicted  
 F;345/Binding site: phosphate (Ser) (covalent) (by casein kinase II) #status predicted

Query Match 49.1%; Score 967.5; DB 2; Length 355;  
 Best Local Similarity 58.7%; Pred. No. 4.9e-77;  
 Matches 185; Conservative 47; Mismatches 72; Indels 11; Gaps 5;

```

Qy      12 NTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCK 71
      ||| : || ||| ||| : : ||||| : ||| : ||| : ||| : |||
Db      5 NTTED-YDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVLVLVQYK 63

Qy      72 KLKCLTDIYLLNLAISDLLFLITLPLWA-HSAANEWVFGNAMCKLFTGLYHIGYFGGIF 130
      :|| :| ||||| ||||| ||| : :||| :||| :||| :||| :|||
Db      64 RLKNMTSIYLLNLAISDLLFLFTLPFWIDYKLKDDWVFGDAMCKILSGFYTGlySEIFF 123

Qy     131 IILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVC 190
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     124 IILLTIDRYLAIVHAVFALRARTVTFGVITSIIIWALAILASMPGLYFSKTQWEFTHHTC 183

Qy     191 GPYFP----RGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHRAVRVIF 246
      :|| | | | : | : ||||| :||| :||| :||| :||| :||| :||| :|||
Db     184 SLHFPHESLREWKLFQALKNLFLGLVLP LLVMIICYTGIIKILLRRPNEKK-SKAVRLIF 242

Qy     247 TIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYA 306
      ||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db     243 VIMIIFFLFWTPYNLTILISVFQDFLFTHCEQSRHLDLAVQVTEVIAythCCVNPVIYA 302

Qy     307 FVGEKF----RSLFH 317
      |||| :| | |||
Db     303 FVGERFRKYLRQLFH 317
  
```

# RESULT 5

I49341

MIP-1 alpha receptor like-2 - mouse

C;Species: Mus musculus (house mouse)

C;Date: 02-Jul-1996 #sequence\_revision 02-Jul-1996 #text\_change 09-Jul-2004

C;Accession: I49341

R;Gao, J.L.; Murphy, P.M.

J. Biol. Chem. 270, 17494-17501, 1995

A;Title: Cloning and differential tissue-specific expression of three mouse beta chemokine receptor-like genes, including the gene for a functional macrophage inflammatory protein-1 alpha receptor.

A;Reference number: I49339; MUID:95340546; PMID:7542241

A;Accession: I49341

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: DNA  
A;Residues: 1-359 <RES>  
A;Cross-references: UNIPROT:Q8K3M7; EMBL:U28406; NID:g881551; PID:g881552  
C;Superfamily: vertebrate rhodopsin

Query Match 48.7%; Score 960; DB 2; Length 359;  
Best Local Similarity 50.1%; Pred. No. 2.2e-76;  
Matches 187; Conservative 59; Mismatches 89; Indels 38; Gaps 7;

```

Qy      10 IRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILIN 69
      |: || | || ::||: || | :||:| ||||| |||| | :||:|||||
Db      8 IKTVVESFE--TTPYEYEWAPPCEKVRikelGswLLPPLYSIVFIIGLLGNMMVVLILIK 65

Qy      70 CKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAA-NEWVFGNAMCKLFTGLYHIGYFGGI 128
      :||: :||:| ||||| |||| | :| | | || | ||: ||: :| ||: : |
Db      66 YRKLQIMTNIYLFNLAI SDLLFLFTVPFWIHVVLWNEWGFGHYMCKMLSGFYALALYSEI 125

Qy     129 FFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVY 188
      ||||| ||||| ||||| :||:| || | ||:| || : | :
Db     126 FFIILLTIDRYLAIVHAVFALRARTVTFATITSIITWGLAGLAALPEFIFHESQDSFGEF 185

Qy     189 VCGPYFPRG----WNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHRAVRV 244
      | | :| | | | : | | | |||:|||||:|||| | ||:|:|:|:
Db     186 SCSPRYPEGEEDSWKRFHALRMNIFGLALPLLVMVICYSGI IKTLLRCPN-KKKHKAIRL 244

Qy     245 IFTIMIVYFLFWTPYNI VILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPII 304
      || :||:|:|||||:|:| : | | :|| : || | |||| : |||:|:|
Db     245 IFVVMIVFFIFWTPYNLVLLFSAFHSTFLETSC EQSKHLDLAMQVTEVIAYTHCCVNPVI 304

Qy     305 YAFVGEKFRS----LFHIALGCRIAPLQKPVCGGPGVVRPGKNVKVTTQGL---LDGRGKG 357
      |||||:| | || | :||:| : : | | |
Db     305 YAFVGERFRKHLRLFFH-----RNVQFTWENIFQFLPGEENG 341

Qy     358 KSI GRAPEASLQD 370
      :: :| | :
Db     342 RTSSVSPSTGEQE 354

```

# RESULT 6

I49339

macrophage inflammatory protein-1 alpha receptor - mouse

C;Species: Mus musculus (house mouse)

C;Date: 02-Jul-1996 #sequence\_revision 02-Jul-1996 #text\_change 09-Jul-2004

C;Accession: I49339

R;Gao, J.L.; Murphy, P.M.

J. Biol. Chem. 270, 17494-17501, 1995

A;Title: Cloning and differential tissue-specific expression of three mouse beta chemokine receptor-like genes, including the gene for a functional macrophage inflammatory protein-1 alpha receptor.

A;Reference number: I49339; MUID:95340546; PMID:7542241

A;Accession: I49339

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: DNA

A;Residues: 1-355 <RES>

A;Cross-references: UNIPROT:P51675; EMBL:U28404; NID:g881547; PIDN:AAA89153.1; PID:g881548

C;Superfamily: vertebrate rhodopsin

Query Match 45.8%; Score 902.5; DB 2; Length 355;  
 Best Local Similarity 53.1%; Pred. No. 2.4e-71;  
 Matches 170; Conservative 58; Mismatches 75; Indels 17; Gaps 6;

```

Qy      21 TTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLTDIY 80
      || |||  || | |: || ||||| ||| |||:|:|:|: ::|: :| ||
Db      13 TTEFDYGDSTPCQKTAVRAFGAGLLPPLYSLVFIIGVVGNVLVILVLMQHRRLQSMTSIY 72

Qy      81 LLNLAISDLLFLITLPLWA-HSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRY 139
      | |||:|:|:| || | : :|:|:|:| ||| :| |:| : | ||||| |||||
Db      73 LFNLAVSDLVFLFTLPFWIDYKLKDDWIFGDAMCKLLSGFYFLGLYSEIFFIILLTIDRY 132

Qy     140 LAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFP---- 195
      ||||| |||:| ||| |::|:| || |:| |:| : | | | : | |:|
Db     133 LAIVHAVFALRARTVTLGIITSITWALAILASMPALYFFKAQWEFTHRTCSPHFPYKSL 192

Qy     196 RGWNNFHTIMRNILGLVLPLLMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLF 255
      : | | : |:|:|:|:|:|:|:|:|:| || | |:| :|:|:|:| | :::|
Db     193 KQWKRFAQALKLNLLGLLPLLMVICYAGIIRILLR-RPSEKKVKAVRLIFAITLLFFLL 251

Qy     256 WTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKF--- 312
      ||||| : : : |:| : || : || | ||| : |||:| ||| |||:|
Db     252 WTPYNLSVFVSAFQDVLFTNQCEQSKHLDLAMQVTEVIAYTHCCVNPIIYVFVGERFWKY 311

Qy     313 -RSLF--HIALGCRIAPLQK 329
      | || |:|: || |
Db     312 LRQLFQRHVAI-----PLAK 326

```

# RESULT 7

G02436

chemokine (C-C) receptor 3 - human

N;Alternate names: C-C CKR-3

C;Species: Homo sapiens (man)

C;Date: 21-Dec-1996 #sequence\_revision 06-Jun-1997 #text\_change 09-Jul-2004

C;Accession: G02436; A57237

R;Ponath, P.D.

submitted to the EMBL Data Library, February 1996

A;Reference number: H01272

A;Accession: G02436

A;Status: translated from GB/EMBL/DDBJ

A;Molecule type: DNA

A;Residues: 1-355 <PON>

A;Cross-references: UNIPROT:P51677; EMBL:U49727; NID:g1477560; PIDN:AAB09726.1; PID:g1477561

R;Combadiere, C.; Ahuja, S.K.; Murphy, P.M.

J. Biol. Chem. 270, 16491-16494, 1995

A;Title: Cloning and functional expression of a human eosinophil CC chemokine receptor.

A;Reference number: A57237; MUID:95348056; PMID:7622448

A;Accession: A57237

A;Status: nucleic acid sequence not shown

A;Molecule type: mRNA

A;Residues: 1-106,'N',108-275,'S',277-280,'R',282-355 <COM>

A;Cross-references: GB:U28694; NID:g1199579; PIDN:AAC50469.1; PID:g1199580

A;Note: the translated sequence in GenBank entry HSU28694, release 113.0, PIDN:AAC50469.1, differs from the published sequence in having 281-Leu  
 C;Genetics:  
 A;Gene: GDB:CMKBR3  
 A;Cross-references: GDB:579624; OMIM:601268  
 A;Map position: 3p21-3p21  
 C;Superfamily: vertebrate rhodopsin  
 C;Keywords: G protein-coupled receptor; glycoprotein; phosphoprotein; transmembrane protein  
 F;36-60/Domain: transmembrane #status predicted <TM1>  
 F;71-91/Domain: transmembrane #status predicted <TM2>  
 F;108-129/Domain: transmembrane #status predicted <TM3>  
 F;147-171/Domain: transmembrane #status predicted <TM4>  
 F;205-223/Domain: transmembrane #status predicted <TM5>  
 F;240-261/Domain: transmembrane #status predicted <TM6>  
 F;288-305/Domain: transmembrane #status predicted <TM7>  
 F;24-273,106-183/Disulfide bonds: #status predicted  
 F;345/Binding site: phosphate (Ser) (covalent) (by casein kinase II) #status predicted

Query Match 45.2%; Score 890.5; DB 2; Length 355;  
 Best Local Similarity 54.6%; Pred. No. 2.7e-70;  
 Matches 167; Conservative 56; Mismatches 72; Indels 11; Gaps 5;

Qy	21	TTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLTDIY	80
		:::          : :     :              :   ::   ::      : ::	
Db	14	TSYYD-DVGLLCEKADTRALMAQFVPPPLYSLVFTVGLLGNVVVVMILIKYRRLRIMTNIY	72
Qy	81	LLNLAISDLLFLITLPLWAHSA-ANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRY	139
		::      :      ::        :	
Db	73	LLNLAISDLLFLVTLFPWIHYVRGHNWVFGHGMCKLLSGFYHTGLYSEIFFIILLTIDRY	132
Qy	140	LAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPR---	196
		::       ::       ::       ::       ::       ::	
Db	133	LAIVHAVFALRARTVTFGVITSIVTWGLAVLAALPEFIFYETEELFEETLCSALYPEDTV	192
Qy	197	-GWNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRRAVRVIFTIMIVYFLF	255
		:   ::	
Db	193	YSWRHFHTLRMTIFCLVLP LLVMAICYTGIIKTLRLCPS-KKKYKAIRLIFVIMAVFFIF	251
Qy	256	WTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRS-	314
		::       ::  :                  :      ::	
Db	252	WTPYNVAILLSSYQSILFGNDCERTKHLDLVLMVTEVIAYSHCCMNPVIYAFVGERFRKY	311
Qy	315	---LFH	317
Db	312	LRHFFH	317

# RESULT 8

JC4587

chemokine (C-C) receptor 4 - mouse

C;Species: Mus musculus (house mouse)

C;Date: 08-Mar-1996 #sequence\_revision 19-Apr-1996 #text\_change 09-Jul-2004

C;Accession: JC4587

R;Hoogewerf, A.J.; Black, D.; Proudfoot, A.E.I.; Wells, T.N.C.; Power, C.A.  
 Biochem. Biophys. Res. Commun. 218, 337-343, 1996

A;Title: Molecular cloning of murine CC CKR-4 and high affinity binding of chemokines to murine and human CC CKR-4.  
A;Reference number: JC4587; MUID:96136324; PMID:8573157  
A;Accession: JC4587  
A;Molecule type: mRNA  
A;Residues: 1-360 <HOO>  
A;Cross-references: UNIPROT:P51680; EMBL:X90862; NID:g1167851; PIDN:CAA62372.1; PID:g1167852  
A;Experimental source: thymus  
C;Genetics:  
A;Gene: cc ckr-4  
C;Superfamily: vertebrate rhodopsin  
C;Keywords: glycoprotein; phosphoprotein; receptor; thymus  
F;2,183,194/Binding site: carbohydrate (Asn) (covalent) #status predicted  
F;72,202,350/Binding site: phosphate (Ser) (covalent) (by casein kinase II) #status predicted  
F;145/Binding site: phosphate (Ser) (covalent) (by protein kinase C) #status predicted  
F;321/Binding site: phosphate (Thr) (covalent) (by protein kinase C) #status predicted

Query Match 42.3%; Score 833; DB 2; Length 360;  
Best Local Similarity 47.9%; Pred. No. 2.9e-65;  
Matches 160; Conservative 63; Mismatches 89; Indels 22; Gaps 5;

```

Qy      10 IRNTNESGEEVTTFFDYD-YGAPCHKFDVKQIGAQLLPPLYSLVFIQFVGNMLVVLILI 68
      : :| :      : :| :      || | :| |      ||||| :| | :||| :|
Db      6 VDTTQDET VYNSYYFYESMPKPCTKEGIKAFGEVFLPPLYSLVFLGLFGNSVVLVLF 65

Qy      69 NCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVFGNAMCKLFTGLYHIGYFGGI 128
      | :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      66 KYKRLKSMTDVYLLNLAISDLLFVLSLFPWGYAADQWVFLGLCKIVSWMYLVGFYSGI 125

Qy      129 FFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVY 188
      ||| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      126 FFIMLSIDRYLAIVHAVFSLKARTLTGYVITSLITWSVAVFASLPGLLFSTCYTEHNHT 185

Qy      189 VCGPYF---PRGWNNFHTIMRNILGLVLPLIMVICYSGILKTLRLCRNEKKRHRAVRVI 245
      | :      | : :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      186 YCKTQYSVNSTTWKVLSSLEINVGLLLIPLGIMLEWYSMIIRTLQHCNEKK-NRAVRMI 244

Qy      246 FTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIY 305
      | : : : :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      245 FGVVFLFLGFWTPYNVVLFLFETLVELEVLQDCTLERYLDYAIQATETLGFHCCINPVIY 304

Qy      306 AFVGEKFR----SLFHIALGCRIAPLQKPVCGGP 335
      | :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      305 FFLGEKFRKYITQLFR-----TCRGP 325

```

# RESULT 9

A57160

chemokine (C-C) receptor 4 - human

N;Alternate names: C-C CKR-4

C;Species: Homo sapiens (man)

C;Date: 10-Nov-1995 #sequence\_revision 10-Nov-1995 #text\_change 09-Jul-2004

C;Accession: A57160

Qy	31	PCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKCLKLTDIYLLNLAI	SDLL	90
		:                 :     :     :     :     :		
Db	28	PCTKEGIKAFGELFLPPLYSLVFVFGLLGNSVVVLVLFKYKRLRSMTDVYLLNLAI	SDLL	87
Qy	91	FLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLAIVHAVF	ALK	150
		: :     :     :         :     : :   :   :                         :		
Db	88	FVFSLPFWGYAADQWVFGGLGCKMISWMYLVGFYSGIFVVMLMSIDRYLAIVHAVF	SLR	147
Qy	151	ARTVTFGVVTSVITWLVAVFASVPGIIFTKCKEDSVYVCGPYFPRG---	WNNFHTIMRN	207
		:     :     :             :     :     :     :     :     :		
Db	148	ARTLTYGVITSLATWSVAVFASLPGFLFSTCYTERNHTYCKTKYSLNSTTWKVL	SSLEIN	207
Qy	208	ILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIIFTIMIVYFLFWTPYNIV	ILLNT	267
		:         :       :       :       :     :     :         :		
Db	208	ILGLVIPLGIMLCYSMIIRTLQHCKNEKK-NKAVKMIFAVVVLFLGFWTPYNIV	LFLET	266
Qy	268	FQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRS-LFHIALG	CR	323

Db 267 LVELEVLQDCTFERYLDAIQATETLAFVHCCLNPIIYFFLGEKFRKYILQLFKTCR 323

RESULT 10

S55594

G protein-coupled receptor E1 - equine herpesvirus 2

C;Species: equine herpesvirus 2

C;Date: 10-Apr-1996 #sequence\_revision 19-Apr-1996 #text\_change 09-Jul-2004

C;Accession: S55594

R;Telford, E.A.R.; Watson, M.S.; Aird, H.C.; Perry, J.; Davison, A.J.

J. Mol. Biol. 249, 520-528, 1995

A;Title: The DNA sequence of equine herpesvirus 2.

A;Reference number: S55594; MUID:95302501; PMID:7783207

A;Accession: S55594

A;Status: preliminary; nucleic acid sequence not shown

A;Molecule type: DNA

A;Residues: 1-383 <TEL>

A;Cross-references: UNIPROT:Q89609; GB:U20824; NID:g695172; PIDN:AAC13788.1;

PID:g695173

C;Superfamily: vertebrate rhodopsin

C;Keywords: G protein-coupled receptor

Query Match 40.3%; Score 794.5; DB 2; Length 383;  
Best Local Similarity 44.3%; Pred. No. 7.2e-62;  
Matches 164; Conservative 60; Mismatches 107; Indels 39; Gaps 7;

Qy 4 TSRSRFRINTNESGEEVTTFFDYDY--GAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNM 61  
|: : : :|| | : | | |||:| | : : ||::| | |||:| | :||:  
Db 32 TTIASLVPSTNSSSEDYDDLDVDYEEASAPCYKSDTTRLAAQVVPALYLLVFLFGLLGNI 91  
  
Qy 62 LVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAH--SAANEVVFNGAMCKLFTGL 119  
|||:|:| | :| ||:: |||||:|:| | | :| || :||| | :  
Db 92 LVVIIVIRYMKIKNLTNMLLNLAISDLLFLLTLPEWMHYIGMYHDWTFGISLCKLLRGV 151  
  
Qy 120 YHIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFT 179  
: : : :| ||||:| ||||:|:| | :| ||| | :| | | :| | :| |  
Db 152 CYMSLYSQVFCIILLTVDRYLAVVYAVTALRFRTVTCGIVTCVCTWFLAGLLSLPEFFFH 211  
  
Qy 180 KCQKEDSVYVCGPYFP----RGWNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNE 235  
| : : | ||:| | | :| | :| ||||| :| | | :| | |  
Db 212 GHQDDNGRVQCDPYYPEMSTNVWRRRAHVAKVIMLSLILPLLIMAVCYVVIIRLLR-RPS 270  
  
Qy 236 KKRHRRAVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGM 295  
||::|:|:| | | :| |||||:|:| | | :| | | | :|:|:  
Db 271 KKKYKAIRLIFVIMVAYFVFWTPYNIVLLSTFHATLLNLQCALSSNLDMALLITKTVA 330  
  
Qy 296 THCCINPIIYAFVGEKFR----SLFHIALG---CRIAPLQKPVCGGPGVRPGKNVKVTTQ 348  
|||:|:|:| ||||| | | : | : |  
Db 331 THCCINPVIYAFVGEKFRRLHYHFFHTYVAIYLCKYIP----- 368  
  
Qy 349 GLLDGRGKGK 358  
| | | :| |  
Db 369 -FLSGDGEGK 377

RESULT 11

I49340

MIP-1 alpha receptor like-1 - mouse

C;Species: Mus musculus (house mouse)

C;Date: 02-Jul-1996 #sequence\_revision 02-Jul-1996 #text\_change 09-Jul-2004

C;Accession: I49340

R;Gao, J.L.; Murphy, P.M.

J. Biol. Chem. 270, 17494-17501, 1995

A;Title: Cloning and differential tissue-specific expression of three mouse beta chemokine receptor-like genes, including the gene for a functional macrophage inflammatory protein-1 alpha receptor.

A;Reference number: I49339; MUID:95340546; PMID:7542241

A;Accession: I49340

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: DNA

A;Residues: 1-356 <RES>

A;Cross-references: UNIPROT:P51676; EMBL:U28405; NID:g881549; PIDN:AAA89154.1; PID:g881550

C;Superfamily: vertebrate rhodopsin

Query Match 37.1%; Score 731; DB 2; Length 356;

Best Local Similarity 46.6%; Pred. No. 2.4e-56;

Matches 137; Conservative 59; Mismatches 92; Indels 6; Gaps 3;

```
Qy      25 DYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLTDIYLLNL 84
      | : | | : | : | | | | | | | : | : | | | : | | | | |
Db      18 DFMSGFLCFSINVRAFGITVPTPLYSLVFIIGVIGHVLVVLVLIQHKRLRNMTSIYLFNL 77

Qy      85 AISDLLFLITLPLWA-HSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLAIV 143
      | | | | : | | | | : : | | | | | : | | : : | | | | | | : |
Db      78 AISDLVFLSTLPFWVDYIMKGDWIFGNAMCKFVSGFYLYGLYSDFITLLTIDRYLAVV 137

Qy     144 HAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPR----GWN 199
      | | | | : | | | | | : : | : | | : | | : : | | : :
Db     138 HVVFALRARTVTFGIISIIITWVLAALVSIPCLYVFKSQMEFTYHTCRAILPRKSLIREL 197

Qy     200 NFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHRRAVRVIIFTIMIVYFLEWTPY 259
      | : | | | | : | | | | : | | | | | : : | | | : : | | |
Db     198 RFQALTMNIGLILPLLAMIICYTRIINVLRH-RPNKKKAKVMRLIFVITLLEFFLLAPY 256

Qy     260 NIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFR 313
      : : : | : : : | : | : : | | | | | : | | | : | |
Db     257 YLAAAFVSFAFEDVLFTPSCLRSQQVDLSLMITEALAYTHCCVNPVIYVFVGKRFR 310
```

RESULT 12

JC5067

G protein-coupled receptor CKR-L1 - human

N;Alternate names: chemokine receptor-like protein TER1; GPR-CY6

C;Species: Homo sapiens (man)

C;Date: 31-Jan-1997 #sequence\_revision 31-Jan-1997 #text\_change 09-Jul-2004

C;Accession: JC5067; G02776; G02387

R;Zaballos, A.; Varona, R.; Gutierrez, J.; Lind, P.; Marquez, G.

Biochem. Biophys. Res. Commun. 227, 846-853, 1996

A;Title: Molecular cloning and RNA expression of two new human chemokine receptor-like genes.

A;Reference number: JC5067; MUID:97040707; PMID:8886020

A;Accession: JC5067

A;Molecule type: DNA  
 A;Residues: 1-355 <ZAB>  
 A;Cross-references: UNIPROT:P51685; EMBL:Z79782; NID:g1668735; PIDN:CAB02142.1; PID:g1668736  
 R;Napolitano, M.; Zingoni, A.; Bernardini, G.; Spinetti, G.; Rocchi, M.; Santoni, A.  
 submitted to the EMBL Data Library, June 1996  
 A;Reference number: H01714  
 A;Accession: G02776  
 A;Status: translated from GB/EMBL/DDBJ  
 A;Molecule type: DNA  
 A;Residues: 1-355 <NAP>  
 A;Cross-references: EMBL:U62556; NID:g1468978; PID:g1468979  
 R;Bonner, T.I.  
 submitted to the EMBL Data Library, January 1996  
 A;Reference number: H01154  
 A;Accession: G02387  
 A;Status: preliminary; translated from GB/EMBL/DDBJ  
 A;Molecule type: DNA  
 A;Residues: 1-355 <BON>  
 A;Cross-references: EMBL:U45983; NID:g1245056; PID:g1245057  
 C;Comment: This protein belongs to the family of beta chemokine receptors.  
 C;Genetics:  
 A;Gene: GDB:CMKBR8; CMKBRL2; TER1; CKR-L1  
 A;Cross-references: GDB:6053733; OMIM:601834  
 A;Map position: 3p21-3p21  
 C;Superfamily: vertebrate rhodopsin  
 C;Keywords: G protein-coupled receptor; transmembrane protein  
 F;36-63/Domain: transmembrane #status predicted <TM1>  
 F;73-94/Domain: transmembrane #status predicted <TM2>  
 F;108-129/Domain: transmembrane #status predicted <TM3>  
 F;147-171/Domain: transmembrane #status predicted <TM4>  
 F;200-222/Domain: transmembrane #status predicted <TM5>  
 F;239-260/Domain: transmembrane #status predicted <TM6>  
 F;281-304/Domain: transmembrane #status predicted <TM7>

Query Match 36.7%; Score 723; DB 2; Length 355;  
 Best Local Similarity 43.5%; Pred. No. 1.2e-55;  
 Matches 131; Conservative 59; Mismatches 103; Indels 8; Gaps 3;

Qy	20	VTTFDYDY----GAPCHKFDVKQIGAQLPLPLYSLVFIFGFVGNMLVVLILINCKKLKC	75
		:   ::        : :  :     : :  :   :	
Db	9	VTTVTDYYYPDIFSSPCDAELIQTNGKLLLAIFYCLLFVFSLLGNSLVILVLVVCCKLRS	68
Qy	76	LTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLT	135
		:  :     :    : :   : ::       : :   : :: :     ::	
Db	69	ITDVYLLNLALSDLLFVSFPFQTYLLDQWVFGTVMCKVVSFGFYIIFYSSMFFITLMS	128
Qy	136	IDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFP	195
		:     :    :      :   :     :  :  :   :        ::	
Db	129	VDRYLAVVHAVYALKVRTIRMGTTLCLAVWLTAIMATIPLLIFYQVASEDGLVLCYSFYN	188
Qy	196	R---GWNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVY	252
		:         :    :          :    : : : :	
Db	189	QOTLKWKIFTNFKMNILGLLIPFTIFMFCYIKILHQLKRCQNHNT-KAIRLVLIIVVIAS	247
Qy	253	FLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKF	312

```

      ||| |:|:|: | : | | : || || ||| : ||||:|:|:|
Db      248 LLFWVPFNVVLFSLHSMHILDGCSISQQLTYATHVTEIISFTHCCVNPVIYAFVGEKF 307

Qy      313 R 313
      :
Db      308 K 308

```

RESULT 13

I58186

probable G protein-coupled receptor - rat

C;Species: Rattus norvegicus (Norway rat)

C;Date: 26-Jul-1996 #sequence\_revision 26-Jul-1996 #text\_change 09-Jul-2004

C;Accession: I58186

R;Harrison, J.K.; Barber, C.M.; Lynch, K.R.

Neurosci. Lett. 169, 85-89, 1994

A;Title: cDNA cloning of a G-protein-coupled receptor expressed in rat spinal cord and brain related to chemokine receptors.

A;Reference number: I58186; MUID:94323113; PMID:8047298

A;Accession: I58186

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: mRNA

A;Residues: 1-354 <RES>

A;Cross-references: UNIPROT:P35411; EMBL:U04808; NID:g2558635; PIDN:AAB87093.1; PID:g439861

C;Superfamily: vertebrate rhodopsin

C;Keywords: G protein-coupled receptor

```

Query Match          35.8%; Score 704.5; DB 2; Length 354;
Best Local Similarity 47.6%; Pred. No. 5e-54;
Matches 151; Conservative 43; Mismatches 112; Indels 11; Gaps 6;

```

```

Qy      24 FDYDYGA-PCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLTDIYLL 82
      |:| | | |: | | | | | | | | | | | | | | | | | | | | | |
Db      13 FEYDDSAEACYLGDIVAFGTIFLSIFYSLVFTFGLVGNLVLVLTNSRKSITSITDIYLL 72

Qy      83 NLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIIFFIILLTIDRYLAI 142
      |||:||||: ||| | | : ||||| | : ||:||||| :||:|||||
Db      73 NLALSDLLFVATLPFWTHYLISHEGLHNAMCKLTTAFFFIGFFGGIIFFITVISIDRYLAI 132

Qy      143 VHAVFALKARTVTFTGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRGWNNFH 202
      | | :: ||| || |: | |: : | :||| :||: | | :|
Db      133 VLAANSMMNRTVQHGVTTISLGVWAAAILVASPQFMFTK-RKDNE---CLGDYPEVLQEIW 188

Qy      203 TIMR----NILGLVLPLLIMVICYSILKTLRLCRNEKKRHRVAVRVIIFTIMIVYFLFWTP 258
      ::| ||| ||||| || |::|| |:| || ||:|:| :||:|:|
Db      189 PVLNRSEVNILGFVLPLLIMSFCYFRIVRTLFSCKNRKKA-RAIRLILLVVVFFLFWTP 247

Qy      259 YNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRS-LFH 317
      |||| | | : : :| | | |||: :|||:| |||| |||| | |
Db      248 YNIVIFLETLKFFYNFFPSCGMKRDRLRWALSVTETVAFSHCCCLNPFYAFAGEKFRRYL RH 307

Qy      318 IALGCRIAPLQKPVC GG 334
      : | :|| |
Db      308 LYNKCLAVLCGRP VHAG 324

```

RESULT 14

JC4304

orphan G protein-coupled receptor - human

N;Alternate names: V28 protein

C;Species: Homo sapiens (man)

C;Date: 16-Nov-1995 #sequence\_revision 08-Feb-1996 #text\_change 09-Jul-2004

C;Accession: JC4304

R;Raport, C.J.; Schweickart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.

Gene 163, 295-299, 1995

A;Title: The orphan G-protein-coupled receptor-encoding gene V28 is closely related to genes for chemokine receptors and is expressed in lymphoid and neural tissues.

A;Reference number: JC4304; MUID:96011651; PMID:7590284

A;Accession: JC4304

A;Molecule type: mRNA

A;Residues: 1-355 <RAP>

A;Cross-references: UNIPROT:P49238; GB:U20350; NID:g665580; PIDN:AAA91783.1;

PID:g665581

A;Experimental source: peripheral blood mononuclear cell

C;Comment: This protein is a cell-surface receptor which recognizes extracellular signals and transduces those signals into an intracellular response.

C;Comment: This protein is a key regulator of many immune and homeostatic responses, and interacts between the nervous and immune systems.

C;Genetics:

A;Gene: v28

A;Map position: 3pter-p21

C;Superfamily: vertebrate rhodopsin

C;Keywords: G protein-coupled receptor; lymphokine; transmembrane protein

F;35-57/Domain: transmembrane #status predicted <TM1>

F;66-88/Domain: transmembrane #status predicted <TM2>

F;104-125/Domain: transmembrane #status predicted <TM3>

F;146-165/Domain: transmembrane #status predicted <TM4>

F;197-217/Domain: transmembrane #status predicted <TM5>

F;230-254/Domain: transmembrane #status predicted <TM6>

F;275-296/Domain: transmembrane #status predicted <TM7>

Query Match 35.4%; Score 698; DB 2; Length 355;

Best Local Similarity 45.3%; Pred. No. 1.9e-53;

Matches 146; Conservative 49; Mismatches 111; Indels 16; Gaps 7;

```

Qy      18 EEVTTFFDY-DYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCL 76
      | || | :| | | : | : | | :| | | :||| | | || | :
Db      6 ESVTENFEYDDLAEACYIGDIVVFGTVFLSIFYSVIFAIGLVGNLLVVFALTNSKKPKSV 65

Qy      77 TDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLYHIGYFGGIFFIILLTI 136
      ||||| :||| : || | | || | | : ||| | ||| : :|
Db      66 TDIYLLNLALSDLLFVATLPFWTHYLINEKGLHNAMCKFTTAFFFIGFFGSIFFITVISI 125

Qy     137 DRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPR 196
      ||||| | : : ||| || | : | | : | :|| ||| : | :|
Db     126 DRYLAIVLAANSMMNRTVQHGVITISLGWAAAILVAAPQFMFTK-QKENE---CLGDYPE 181

Qy     197 GWNNFHTIMRNI----LGLVLP LLIMVICYSGILKTLLRCRNEKKRHRRAVRVIFTIMIVY 252
      :|| : || : |||| | | | :|| | :| || :||| : :||
Db     182 VLQEIWPVLRNVETNFLGFLPLLIMSYCYFRIIQTLSCKNHKKA-KAIKLILLVVIVF 240

```

```

Qy      253 FLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKF 312
          |||||:::| | | : : : : | | |||: :|||:|:| | | |
Db      241 FLFWTPYNVMIFLETCLKLYDFFPSCDMRKDLRLALSVTETVAFSHCCLNPLIYAFAGEKF 300

Qy      313 RS-LFHIALGCRIAPLQKPVCV 333
          | |:: | :|
Db      301 RRYLYHLYGKCLAV-----LCG 317

```

RESULT 15

JC5942

chemokine receptor - human

C;Species: Homo sapiens (man)

C;Date: 16-Jul-1999 #sequence\_revision 16-Jul-1999 #text\_change 09-Jul-2004

C;Accession: JC5942

R;Fan, P.; Kyaw, H.; Su, K.; Zeng, Z.; Augustus, M.; Carter, K.C.; Li, Y.

Biochem. Biophys. Res. Commun. 243, 264-268, 1998

A;Title: Cloning and characterization of a novel human chemokine receptor.

A;Reference number: JC5942; MUID:98139902; PMID:9473515

A;Accession: JC5942

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-344 <FAN>

A;Cross-references: UNIPROT:O00421; GB:U97123; NID:g2897070; PIDN:AAC39595.1;

PID:g2897071

C;Superfamily: vertebrate rhodopsin

```

Query Match          32.7%; Score 644.5; DB 2; Length 344;
Best Local Similarity 39.9%; Pred. No. 8.7e-49;
Matches 132; Conservative 58; Mismatches 120; Indels 21; Gaps 6;

```

```

Qy      27 DYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLTDIYLLNLAI 86
          | | | : : |||:| | | ||: | : |::|||: | || : :|||:|:|
Db      23 DEAEQCDKYDAQALSAQLVPSLCSAVFVIGVLDNLLVVLILVVKYKGLKRVENIYLLNLAV 82

Qy      87 SDLLFLITLPLWAHSAANEVFGNAMCKLFTGLYHIGYFGGIIFFIILLTIDRYLAIVH-A 145
          |:| ||:| | | | : | : |||: | | : | | | : | | : |
Db      83 SNLCFLLTLFWAHAG-----GDPMKILIGLYFVGLYSETFFNCLLTQRYLVFLHKG 136

Qy      146 VFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCG----PYFPRG---W 198
          | | | |::|||: | : |::| : | | | | | | | : | |
Db      137 NFFSARRRVPCGIITSVLAWVTAILATLPEYVVYKPMEDQKYKCAFSRTPFLPADETFW 196

Qy      199 NNFHTIMRNILGLVLPLLIMVICYSGLKTLRLCRNEKKRHRVRVIFTIMIVYFLWTP 258
          :| | : || |||| | | : || | :|: :::| ||:| | | |
Db      197 KHFLTLKMNISVLVLPFLFIFTFLYVQMRKTL---RFREQRYSLFKLVFAIMVFLMWAP 253

Qy      259 YNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRS---- 314
          ||| |::| | | |::: ||:: :| : | | | |::|||: |
Db      254 YNIAFFLSTFKEHFSLSCKSSYNLDKSVHITKLIATTHCCINPLLYAFLDGTFSKYLGR 313

Qy      315 LFHIALGCRIAPLQKPVCVGGPGVRPGKNVKV 345
          ||: : | : | : :|
Db      314 CFHLRSNTPLQPRGQSAQGTSTREEPDHSTEV 344

```

Search completed: January 24, 2005, 21:48:27

Job time : 26.4768 secs

OM protein - protein search, using sw model

Run on: January 24, 2005, 21:47:41 ; Search time 101.398 Seconds  
(without alignments)  
1332.595 Million cell updates/sec

Title: US-10-791-166-2  
Perfect score: 1970  
Sequence: 1 MLSTSRSRFIRNTNESGEEV.....GKGKSIGRAPEASLQDKEGA 374

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1608061 seqs, 361289386 residues

Total number of hits satisfying chosen parameters: 1608061

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications\_AA:\*  
1: /cgn2\_6/ptodata/1/pubpaa/US07\_PUBCOMB.pep:\*  
2: /cgn2\_6/ptodata/1/pubpaa/PCT\_NEW\_PUB.pep:\*  
3: /cgn2\_6/ptodata/1/pubpaa/US06\_NEW\_PUB.pep:\*  
4: /cgn2\_6/ptodata/1/pubpaa/US06\_PUBCOMB.pep:\*  
5: /cgn2\_6/ptodata/1/pubpaa/US07\_NEW\_PUB.pep:\*  
6: /cgn2\_6/ptodata/1/pubpaa/PCTUS\_PUBCOMB.pep:\*  
7: /cgn2\_6/ptodata/1/pubpaa/US08\_NEW\_PUB.pep:\*  
8: /cgn2\_6/ptodata/1/pubpaa/US08\_PUBCOMB.pep:\*  
9: /cgn2\_6/ptodata/1/pubpaa/US09A\_PUBCOMB.pep:\*  
10: /cgn2\_6/ptodata/1/pubpaa/US09B\_PUBCOMB.pep:\*  
11: /cgn2\_6/ptodata/1/pubpaa/US09C\_PUBCOMB.pep:\*  
12: /cgn2\_6/ptodata/1/pubpaa/US09\_NEW\_PUB.pep:\*  
13: /cgn2\_6/ptodata/1/pubpaa/US10A\_PUBCOMB.pep:\*  
14: /cgn2\_6/ptodata/1/pubpaa/US10B\_PUBCOMB.pep:\*  
15: /cgn2\_6/ptodata/1/pubpaa/US10C\_PUBCOMB.pep:\*  
16: /cgn2\_6/ptodata/1/pubpaa/US10D\_PUBCOMB.pep:\*  
17: /cgn2\_6/ptodata/1/pubpaa/US10\_NEW\_PUB.pep:\*  
18: /cgn2\_6/ptodata/1/pubpaa/US11\_NEW\_PUB.pep:\*  
19: /cgn2\_6/ptodata/1/pubpaa/US60\_NEW\_PUB.pep:\*  
20: /cgn2\_6/ptodata/1/pubpaa/US60\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	1970	100.0	374	10	US-09-893-512-13	Sequence 13, Appl
2	1970	100.0	374	14	US-10-039-659-14	Sequence 14, Appl
3	1970	100.0	374	14	US-10-239-423-63	Sequence 63, Appl
4	1970	100.0	374	16	US-10-754-071-14	Sequence 14, Appl
5	1970	100.0	374	16	US-10-741-601-287	Sequence 287, App
6	1970	100.0	374	17	US-10-791-592-2	Sequence 2, Appli
7	1970	100.0	374	17	US-10-791-166-2	Sequence 2, Appli
8	1823	92.5	344	9	US-09-779-879A-9	Sequence 9, Appli
9	1823	92.5	344	9	US-09-779-880A-9	Sequence 9, Appli
10	1823	92.5	344	14	US-10-232-686-9	Sequence 9, Appli
11	1823	92.5	344	14	US-10-067-800-9	Sequence 9, Appli
12	1823	92.5	344	14	US-10-135-839-9	Sequence 9, Appli
13	1727.5	87.7	329	9	US-09-725-285-9	Sequence 9, Appli
14	1727.5	87.7	329	9	US-09-195-662A-9	Sequence 9, Appli
15	1727.5	87.7	329	9	US-09-339-912A-9	Sequence 9, Appli
16	1727.5	87.7	329	9	US-09-502-783A-9	Sequence 9, Appli
17	1727.5	87.7	329	16	US-10-791-905-9	Sequence 9, Appli
18	1651.5	83.8	360	9	US-09-131-827A-2	Sequence 2, Appli
19	1651.5	83.8	360	14	US-10-225-567A-460	Sequence 460, App
20	1651.5	83.8	360	14	US-10-164-649-50	Sequence 50, Appl
21	1651.5	83.8	360	14	US-10-239-423-64	Sequence 64, Appl
22	1651.5	83.8	360	14	US-10-439-845-8	Sequence 8, Appli
23	1651.5	83.8	360	16	US-10-741-601-285	Sequence 285, App
24	1651.5	83.8	360	16	US-10-741-601-286	Sequence 286, App
25	1651.5	83.8	360	17	US-10-791-592-4	Sequence 4, Appli
26	1651.5	83.8	360	17	US-10-791-166-4	Sequence 4, Appli
27	1651.5	83.8	360	17	US-10-700-313-8	Sequence 8, Appli
28	1650.5	83.8	360	9	US-09-131-827A-20	Sequence 20, Appl
29	1645.5	83.5	360	9	US-09-938-719-7	Sequence 7, Appli
30	1645.5	83.5	360	9	US-09-939-226-7	Sequence 7, Appli
31	1645.5	83.5	360	9	US-09-938-703-7	Sequence 7, Appli
32	1645.5	83.5	360	10	US-09-826-509-473	Sequence 473, App
33	1645.5	83.5	360	16	US-10-661-798-7	Sequence 7, Appli
34	1645.5	83.5	360	16	US-10-612-791-7	Sequence 7, Appli
35	1614.5	82.0	360	14	US-10-164-649-51	Sequence 51, Appl
36	1589.5	80.7	347	9	US-09-104-792-3	Sequence 3, Appli
37	1589.5	80.7	347	14	US-10-176-078-3	Sequence 3, Appli
38	1589.5	80.7	347	17	US-10-893-996-3	Sequence 3, Appli
39	1582.5	80.3	384	10	US-09-893-512-14	Sequence 14, Appl
40	1236	62.7	352	14	US-10-151-274-5	Sequence 5, Appli
41	1230	62.4	352	14	US-10-164-649-52	Sequence 52, Appl
42	1224	62.1	352	9	US-09-725-285-2	Sequence 2, Appli
43	1224	62.1	352	9	US-09-759-841-2	Sequence 2, Appli
44	1224	62.1	352	9	US-09-779-879A-22	Sequence 22, Appl
45	1224	62.1	352	9	US-09-779-880A-22	Sequence 22, Appl

#### ALIGNMENTS

##### RESULT 1

US-09-893-512-13

; Sequence 13, Application US/09893512

; Publication No. US20030017530A1

```
; GENERAL INFORMATION:
; APPLICANT: OWMAN, CHRISTER
; TITLE OF INVENTION: HEPTAHELIX RECEPTOR AND ITS USE AS LEUKOTRIENE B4
; TITLE OF INVENTION: RECEPTOR
; FILE REFERENCE: 07675.0001-03 SEQUENCE LISTING
; CURRENT APPLICATION NUMBER: US/09/893,512
; CURRENT FILING DATE: 2001-06-29
; PRIOR APPLICATION NUMBER: 60/061,789
; PRIOR FILING DATE: 1997-10-14
; PRIOR APPLICATION NUMBER: 60/081,958
; PRIOR FILING DATE: 1998-04-15
; PRIOR APPLICATION NUMBER: 09/170,069
; PRIOR FILING DATE: 1998-10-13
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 13
; LENGTH: 374
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-893-512-13
```

```
Query Match          100.0%; Score 1970; DB 10; Length 374;
Best Local Similarity 100.0%; Pred. No. 3.4e-163;
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        |||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
        |||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        |||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        |||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        |||
Db    241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
        |||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
        |||
Db    361 GRAPEASLQDKEGA 374
```

```
RESULT 2
US-10-039-659-14
; Sequence 14, Application US/10039659
```

```

; Publication No. US20030018167A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Wei
; Gish, Kurt C.
; Schall, Thomas J.
; Vicari, Alain P.
; Zlotnik, Albert
; TITLE OF INVENTION: MAMMALIAN CHEMOKINE REAGENTS
; NUMBER OF SEQUENCES: 19
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: DNAX Research Institute
; STREET: 901 California Avenue
; CITY: Palo Alto
; STATE: California
; COUNTRY: USA
; ZIP: 94304-1104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/039,659
; FILING DATE: 03-Jan-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/887,977
; FILING DATE: 03-JUL-1997
; APPLICATION NUMBER: US 60/021,644
; FILING DATE: 05-JUL-1996
; APPLICATION NUMBER: US 60/028,329
; FILING DATE: 11-OCT-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Ching, Edwin P.
; REGISTRATION NUMBER: 34,090
; REFERENCE/DOCKET NUMBER: DX0589K1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-852-9192
; TELEFAX: 650-496-1200
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 374 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-039-659-14

```

```

Query Match          100.0%;  Score 1970;  DB 14;  Length 374;
Best Local Similarity 100.0%;  Pred. No. 3.4e-163;
Matches 374;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

```

Qy	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Db	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241	AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Db	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Qy	361	GRAPEASLQDKEGA	374
Db	361	GRAPEASLQDKEGA	374

RESULT 3

US-10-239-423-63

; Sequence 63, Application US/10239423

; Publication No. US20030186889A1

; GENERAL INFORMATION:

; APPLICANT: FORSSMANN, Wolf-Georg; FORSSMANN, Ulf; ADERMANN, Knut;

; APPLICANT: HEITLAND, Aleksandra; SPODSBERG, Nikolaj

; TITLE OF INVENTION: Diagnostic Agent and Medicament for Examining the

; TITLE OF INVENTION: Cell Surface Proteome of Tumor and Inflammation Cells  
and

; TITLE OF INVENTION: for Treating Tumor Diseases and Inflammatory Diseases,

; TITLE OF INVENTION: Preferably with the Aid of Specific Chemokine

; TITLE OF INVENTION: Receptor Analysis and Chemokine Receptor/Ligand  
Interaction

; FILE REFERENCE: 022217us

; CURRENT APPLICATION NUMBER: US/10/239,423

; CURRENT FILING DATE: 2002-09-23

; PRIOR APPLICATION NUMBER: DE10016013.1

; PRIOR FILING DATE: 2000-03-31

; NUMBER OF SEQ ID NOS: 84

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 63

; LENGTH: 374

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence:

; OTHER INFORMATION: Amino Acid Sequence for the Generation of Antibodies

US-10-239-423-63

Query Match	100.0%;	Score 1970;	DB 14;	Length 374;
Best Local Similarity	100.0%;	Pred. No. 3.4e-163;		

Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKCLKLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIFTIMIVYFLFWTPYNI VILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIFTIMIVYFLFWTPYNI VILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
        ||||||||||||||
Db    361 GRAPEASLQDKEGA 374

```

RESULT 4

US-10-754-071-14

```

; Sequence 14, Application US/10754071
; Publication No. US20040137578A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Wei
; APPLICANT: Gish, Kurt C.
; APPLICANT: Schall, Thomas J.
; APPLICANT: Vicari, Alain P.
; APPLICANT: Zlotnik, Albert
; TITLE OF INVENTION: Chemokine TECK Polypeptides
; FILE REFERENCE: DX0589K1C US
; CURRENT APPLICATION NUMBER: US/10/754,071
; CURRENT FILING DATE: 2004-01-07
; PRIOR APPLICATION NUMBER: US 10/039,659
; PRIOR FILING DATE: 2002-01-03
; PRIOR APPLICATION NUMBER: US 08/887,977
; PRIOR FILING DATE: 1997-07-03
; PRIOR APPLICATION NUMBER: US 60/021,664
; PRIOR FILING DATE: 1996-07-05
; PRIOR APPLICATION NUMBER: US 60/028,329
; PRIOR FILING DATE: 1996-10-11
; PRIOR APPLICATION NUMBER: US 60/048,593
; PRIOR FILING DATE: 1997-06-04
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: PatentIn version 3.1

```

; SEQ ID NO 14  
; LENGTH: 374  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-10-754-071-14

Query Match 100.0%; Score 1970; DB 16; Length 374;  
Best Local Similarity 100.0%; Pred. No. 3.4e-163;  
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPPIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPPIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
          ||||||||||||||
Db    361 GRAPEASLQDKEGA 374
```

RESULT 5

US-10-741-601-287

; Sequence 287, Application US/10741601

; Publication No. US20040166519A1

; GENERAL INFORMATION:

; APPLICANT: CARGILL, Michele et al.

; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH

; TITLE OF INVENTION: STENOSIS, METHODS OF DETECTION AND USES THEREOF

; FILE REFERENCE: CL001500

; CURRENT APPLICATION NUMBER: US/10/741,601

; CURRENT FILING DATE: 2003-12-22

; NUMBER OF SEQ ID NOS: 26415

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 287

; LENGTH: 374

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-741-601-287

Query Match 100.0%; Score 1970; DB 16; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 3.4e-163;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNEFTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNEFTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
      ||||||||||||||
Db    361 GRAPEASLQDKEGA 374
  
```

RESULT 6

US-10-791-592-2

; Sequence 2, Application US/10791592

; Publication No. US20040219644A1

; GENERAL INFORMATION:

; APPLICANT: Charo, Israel

; Coughlin, Shaun

; TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT  
 ; PROTEIN RECEPTORS

; NUMBER OF SEQUENCES: 14

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Cooley Godward Castro Huddleson & Tatum

; STREET: 5 Palo Alto Square

; CITY: Palo Alto

; STATE: California

; COUNTRY: USA

; ZIP: 94306-2155

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

```

; APPLICATION NUMBER: US/10/791,592
; FILING DATE: 01-Mar-2004
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/09/625,573
; FILING DATE: 25-Jul-2000
; APPLICATION NUMBER: US/08/446,669
; FILING DATE: May 25, 1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Neeley, Richard
; REGISTRATION NUMBER: 30,092
; REFERENCE/DOCKET NUMBER: UCAL-237/01US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-843-5000
; TELEFAX: 415-857-0663
; TELEX: 380816CooleyPA
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 374 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-791-592-2

```

```

Query Match          100.0%; Score 1970; DB 17; Length 374;
Best Local Similarity 100.0%; Pred. No. 3.4e-163;
Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy    361 GRAPEASLQDKEGA 374
        ||||||||||||
Db    361 GRAPEASLQDKEGA 374

```

RESULT 7

US-10-791-166-2

```
; Sequence 2, Application US/10791166
; Publication No. US20040223968A1
; GENERAL INFORMATION:
;   APPLICANT: Charo, Israel
;             Coughlin, Shaun
;   TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT
;                     PROTEIN RECEPTORS
;   NUMBER OF SEQUENCES: 14
;   CORRESPONDENCE ADDRESS:
;     ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
;     STREET: 5 Palo Alto Square
;     CITY: Palo Alto
;     STATE: California
;     COUNTRY: USA
;     ZIP: 94306-2155
;   COMPUTER READABLE FORM:
;     MEDIUM TYPE: Floppy disk
;     COMPUTER: IBM PC compatible
;     OPERATING SYSTEM: PC-DOS/MS-DOS
;     SOFTWARE: PatentIn Release #1.0, Version #1.25
;   CURRENT APPLICATION DATA:
;     APPLICATION NUMBER: US/10/791,166
;     FILING DATE: 01-Mar-2004
;     CLASSIFICATION: <Unknown>
;   PRIOR APPLICATION DATA:
;     APPLICATION NUMBER: US/09/625,573
;     FILING DATE: 25-Jul-2000
;     APPLICATION NUMBER: US/08/446,669
;     FILING DATE: May 25, 1995
;   ATTORNEY/AGENT INFORMATION:
;     NAME: Neeley, Richard
;     REGISTRATION NUMBER: 30,092
;     REFERENCE/DOCKET NUMBER: UCAL-237/01US
;   TELECOMMUNICATION INFORMATION:
;     TELEPHONE: 415-843-5000
;     TELEFAX: 415-857-0663
;     TELEX: 380816CooleyPA
;   INFORMATION FOR SEQ ID NO: 2:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH: 374 amino acids
;       TYPE: amino acid
;       TOPOLOGY: linear
;     MOLECULE TYPE: protein
;     SEQUENCE DESCRIPTION: SEQ ID NO: 2:
```

US-10-791-166-2

```
Query Match          100.0%;  Score 1970;  DB 17;  Length 374;
Best Local Similarity 100.0%;  Pred. No. 3.4e-163;
Matches 374;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;
```

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
```

Qy 61 MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120  
 |||  
 Db 61 MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy 121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180  
 |||  
 Db 121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy 181 CQKEDSVYVCGPYFPRGWNNEFTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240  
 |||  
 Db 181 CQKEDSVYVCGPYFPRGWNNEFTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy 241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300  
 |||  
 Db 241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300

Qy 301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360  
 |||  
 Db 301 NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI 360

Qy 361 GRAPEASLQDKEGA 374  
 |||  
 Db 361 GRAPEASLQDKEGA 374

RESULT 8

US-09-779-879A-9

; Sequence 9, Application US/09779879A  
 ; Patent No. US20020048786A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Rosen, Craig A.  
 ; APPLICANT: Roschke, Viktor  
 ; APPLICANT: Li, Yi  
 ; APPLICANT: Ruben, Steven, M.  
 ; TITLE OF INVENTION: Human G-protein Chemokine Receptor (CCR5) HDG NR10  
 ; FILE REFERENCE: 1488.115000A  
 ; CURRENT APPLICATION NUMBER: US/09/779,879A  
 ; CURRENT FILING DATE: 2001-02-09  
 ; PRIOR APPLICATION NUMBER: US 60/181,258  
 ; PRIOR FILING DATE: 2000-02-09  
 ; PRIOR APPLICATION NUMBER: US 60/187,999  
 ; PRIOR FILING DATE: 2000-03-09  
 ; PRIOR APPLICATION NUMBER: US 60/234,336  
 ; PRIOR FILING DATE: 2000-09-22  
 ; NUMBER OF SEQ ID NOS: 58  
 ; SOFTWARE: PatentIn version 3.0  
 ; SEQ ID NO 9  
 ; LENGTH: 344  
 ; TYPE: PRT  
 ; ORGANISM: Homo sapiens  
 US-09-779-879A-9

Query Match 92.5%; Score 1823; DB 9; Length 344;  
 Best Local Similarity 100.0%; Pred. No. 2e-150;  
 Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77

Db	1	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT	60
Qy	78	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	137
Db	61	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	120
Qy	138	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	197
Db	121	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	180
Qy	198	WNNFHTIMRNILGLVLPLLIMVICYSGLIKTLLRCRNEKKRHRAVRVIFTIMIVYFLEWT	257
Db	181	WNNFHTIMRNILGLVLPLLIMVICYSGLIKTLLRCRNEKKRHRAVRVIFTIMIVYFLEWT	240
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	317
Db	241	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	300
Qy	318	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	361
Db	301	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	344

RESULT 9

US-09-779-880A-9

; Sequence 9, Application US/09779880A

; Patent No. US20020061834A1

; GENERAL INFORMATION:

; APPLICANT: Rosen, Craig A.

; APPLICANT: Roschke, Viktor

; APPLICANT: Li, Yi

; APPLICANT: Ruben, Steven, M.

; TITLE OF INVENTION: Human G-protein Chemokine Receptor (CCR5) HDGMR10

; FILE REFERENCE: 1488.115000C

; CURRENT APPLICATION NUMBER: US/09/779,880A

; CURRENT FILING DATE: 2001-02-09

; PRIOR APPLICATION NUMBER: US 60/181,258

; PRIOR FILING DATE: 2000-02-09

; PRIOR APPLICATION NUMBER: US 60/187,999

; PRIOR FILING DATE: 2000-03-09

; PRIOR APPLICATION NUMBER: US 60/234,336

; PRIOR FILING DATE: 2000-09-22

; NUMBER OF SEQ ID NOS: 58

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 9

; LENGTH: 344

; TYPE: PRT

; ORGANISM: Homo sapiens

US-09-779-880A-9

Query Match 92.5%; Score 1823; DB 9; Length 344;

Best Local Similarity 100.0%; Pred. No. 2e-150;

Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	18	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT	77

```

Db          1 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60
Qy          78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137
            |||
Db          61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 120
Qy          138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197
            |||
Db          121 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 180
Qy          198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 257
            |||
Db          181 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 240
Qy          258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317
            |||
Db          241 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 300
Qy          318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 361
            |||
Db          301 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 344

```

RESULT 10

US-10-232-686-9

; Sequence 9, Application US/10232686

; Publication No. US20030023044A1

; GENERAL INFORMATION:

; APPLICANT: Li, Yi

; APPLICANT: Ruben, Steven M.

; TITLE OF INVENTION: Human G-Protein Chemokine Receptor (CCR5) HDGNR10

; FILE REFERENCE: 1488.115000N

; CURRENT APPLICATION NUMBER: US/10/232,686

; CURRENT FILING DATE: 2002-09-03

; PRIOR APPLICATION NUMBER: 09/339,912

; PRIOR FILING DATE: 1999-06-25

; PRIOR APPLICATION NUMBER: 09/195,662

; PRIOR FILING DATE: 1998-11-18

; PRIOR APPLICATION NUMBER: 08/466,343

; PRIOR FILING DATE: 1995-06-06

; NUMBER OF SEQ ID NOS: 9

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 9

; LENGTH: 344

; TYPE: PRT

; ORGANISM: Homo Sapiens

US-10-232-686-9

Query Match 92.5%; Score 1823; DB 14; Length 344;

Best Local Similarity 100.0%; Pred. No. 2e-150;

Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

Qy          18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77
            |||
Db          1 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60
Qy          78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137

```

Db	61	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	120
Qy	138	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	197
Db	121	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	180
Qy	198	WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLFWT	257
Db	181	WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRAVRVIFTIMIVYFLFWT	240
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	317
Db	241	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	300
Qy	318	IALGCRIAPLQKPVC GPGVRPGKNVKVTTQGLLDGRGKGKSIG	361
Db	301	IALGCRIAPLQKPVC GPGVRPGKNVKVTTQGLLDGRGKGKSIG	344

RESULT 11

US-10-067-800-9

; Sequence 9, Application US/10067800

; Publication No. US20030100058A1

; GENERAL INFORMATION:

; APPLICANT: Roschke, Viktor

; APPLICANT: Rosen, Craig A.

; APPLICANT: Ruben, Steven, M.

; TITLE OF INVENTION: Human G-protein Chemokine Receptor (CCR5) HDG NR10

; FILE REFERENCE: 1488.115000I

; CURRENT APPLICATION NUMBER: US/10/067,800

; CURRENT FILING DATE: 2002-02-08

; PRIOR APPLICATION NUMBER: PCT/US01/04153

; PRIOR FILING DATE: 2001-02-09

; PRIOR APPLICATION NUMBER: 09/779,880

; PRIOR FILING DATE: 2001-02-09

; PRIOR APPLICATION NUMBER: 60/297,257

; PRIOR FILING DATE: 2001-06-12

; PRIOR APPLICATION NUMBER: 60/310,458

; PRIOR FILING DATE: 2001-08-08

; PRIOR APPLICATION NUMBER: 60/328,447

; PRIOR FILING DATE: 2001-10-12

; PRIOR APPLICATION NUMBER: 60/341,725

; PRIOR FILING DATE: 2001-12-21

; NUMBER OF SEQ ID NOS: 70

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 9

; LENGTH: 344

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-067-800-9

Query Match 92.5%; Score 1823; DB 14; Length 344;

Best Local Similarity 100.0%; Pred. No. 2e-150;

Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77

Db	1	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLLILINCKKLKCLT	60
Qy	78	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	137
Db	61	DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID	120
Qy	138	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	197
Db	121	RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG	180
Qy	198	WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT	257
Db	181	WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWT	240
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	317
Db	241	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	300
Qy	318	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	361
Db	301	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	344

RESULT 12

US-10-135-839-9

```

; Sequence 9, Application US/10135839
; Publication No. US20030166024A1
; GENERAL INFORMATION:
; APPLICANT: Rosen, Craig A.
; APPLICANT: Roschke, Viktor
; APPLICANT: Li, Yi
; APPLICANT: Ruben, Steven, M.
; TITLE OF INVENTION: Human G-protein Chemokine Receptor (CCR5) HDGMR10
; FILE REFERENCE: 1488.115000A
; CURRENT APPLICATION NUMBER: US/10/135,839
; CURRENT FILING DATE: 2002-05-01
; PRIOR APPLICATION NUMBER: US/09/779,879A
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: US 60/187,999
; PRIOR FILING DATE: 2000-03-09
; PRIOR APPLICATION NUMBER: US 60/234,336
; PRIOR FILING DATE: 2000-09-22
; NUMBER OF SEQ ID NOS: 58
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 344
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-135-839-9

```

```

Query Match          92.5%; Score 1823; DB 14; Length 344;
Best Local Similarity 100.0%; Pred. No. 2e-150;
Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

Qy	18	EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLLILINCKKLKCLT	77

```

Db          1 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60
Qy          78 DIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137
            |||
Db          61 DIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLYHIGYFGGIFFIILLTID 120
Qy          138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197
            |||
Db          121 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 180
Qy          198 WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 257
            |||
Db          181 WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 240
Qy          258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317
            |||
Db          241 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 300
Qy          318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 361
            |||
Db          301 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 344

```

RESULT 13

US-09-725-285-9

; Sequence 9, Application US/09725285

; Patent No. US20010000241A1

; GENERAL INFORMATION:

; APPLICANT: Li, Yi

; APPLICANT: Ruben, Steven, M.

; TITLE OF INVENTION: Antibodies to Human G-Protein Chemokine Receptor HDGMR10

; TITLE OF INVENTION: (CCR5 Receptor)

; FILE REFERENCE: 1488.1150003

; CURRENT APPLICATION NUMBER: US/09/725,285

; CURRENT FILING DATE: 2000-11-29

; PRIOR APPLICATION NUMBER: 09/339,912

; PRIOR FILING DATE: 1999-06-25

; PRIOR APPLICATION NUMBER: 09/195,662

; PRIOR FILING DATE: 1998-11-18

; PRIOR APPLICATION NUMBER: 08/466,343

; PRIOR FILING DATE: 1995-06-06

; NUMBER OF SEQ ID NOS: 9

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 9

; LENGTH: 329

; TYPE: PRT

; ORGANISM: Protein

US-09-725-285-9

Query Match 87.7%; Score 1727.5; DB 9; Length 329;

Best Local Similarity 95.6%; Pred. No. 3.9e-142;

Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

```

Qy          18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77
            |||
Db          1 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60

```

Qy 78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHI----- 105

Qy 138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 106 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 165

Qy 198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 257  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 166 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 225

Qy 258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 226 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 285

Qy 318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 361  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 286 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 329

RESULT 14

US-09-195-662A-9

; Sequence 9, Application US/09195662A

; Patent No. US20020076745A1

; GENERAL INFORMATION:

; APPLICANT: Li, Yi

; APPLICANT: Ruben, Steven, M.

; TITLE OF INVENTION: Human G-Protein Chemokine Receptor HDGMR10 (CCR5 Receptor)

; FILE REFERENCE: 1488.1150002

; CURRENT APPLICATION NUMBER: US/09/195,662A

; CURRENT FILING DATE: 1998-11-18

; PRIOR APPLICATION NUMBER: 08/466,343

; PRIOR FILING DATE: 1995-06-06

; NUMBER OF SEQ ID NOS: 9

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 9

; LENGTH: 329

; TYPE: PRT

; ORGANISM: Protein

US-09-195-662A-9

Query Match 87.7%; Score 1727.5; DB 9; Length 329;

Best Local Similarity 95.6%; Pred. No. 3.9e-142;

Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

Qy 18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 77  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 1 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLT 60

Qy 78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHI----- 105

Qy 138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197

```

Db      106 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 165
Qy      198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRRAVRVI FTIMIVYFLFWT 257
Db      166 WNNFHTIMRNILGLVLP LLIMVICYSGILKTL LRCRNEKKRHRRAVRVI FTIMIVYFLFWT 225
Qy      258 PYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 317
Db      226 PYNIVILLNTFQEFFGLSNCESTS QLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH 285
Qy      318 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 361
Db      286 IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG 329

```

RESULT 15

US-09-339-912A-9

```

; Sequence 9, Application US/09339912A
; Patent No. US20020099176A1
; GENERAL INFORMATION:
; APPLICANT: Li, Yi
; APPLICANT: Ruben, Steven, M.
; TITLE OF INVENTION: Antibodies to Human G-Protein Chemokine Receptor
HDGNR10
; TITLE OF INVENTION: (CCR5 Receptor)
; FILE REFERENCE: 1488.1150003
; CURRENT APPLICATION NUMBER: US/09/339,912A
; CURRENT FILING DATE: 1999-06-25
; PRIOR APPLICATION NUMBER: 09/195,662
; PRIOR FILING DATE: 1998-11-18
; PRIOR APPLICATION NUMBER: 08/466,343
; PRIOR FILING DATE: 1995-06-06
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 329
; TYPE: PRT
; ORGANISM: Protein
US-09-339-912A-9

```

```

Query Match      87.7%; Score 1727.5; DB 9; Length 329;
Best Local Similarity 95.6%; Pred. No. 3.9e-142;
Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

```

```

Qy      18 EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKCLKLT 77
Db      1  EEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKCLKLT 60
Qy      78 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTID 137
Db      61 DIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHI----- 105
Qy     138 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 197
Db     106 RYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG 165

```

Qy	198	WNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWT	257
Db	166	WNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWT	225
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	317
Db	226	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLFH	285
Qy	318	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	361
Db	286	IALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSIG	329

Search completed: January 24, 2005, 22:04:51  
Job time : 103.398 secs

OM protein - protein search, using sw model

Run on: January 24, 2005, 21:28:29 ; Search time 130.441 Seconds  
 (without alignments)  
 1649.707 Million cell updates/sec

Title: US-10-791-166-2  
 Perfect score: 1970  
 Sequence: 1 MLSTSRSRFIRNTNESGEEV.....GKGKSIGRAPEASLQDKEGA 374

Scoring table: BLOSUM62  
 Gapop 10.0 , Gapext 0.5

Searched: 1825181 seqs, 575374646 residues

Total number of hits satisfying chosen parameters: 1825181

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : UniProt\_02:\*  
 1: uniprot\_sprot:\*  
 2: uniprot\_trembl:\*

Pred. No. is the number of results predicted by chance to have a  
 score greater than or equal to the score of the result being printed,  
 and is derived by analysis of the total score distribution.

# SUMMARIES

Result		%					
No.	Score	Query Match	Length	DB	ID	Description	
1	1970	100.0	374	1	CKR2_HUMAN	P41597 homo sapien	
2	1614.5	82.0	360	1	CKR2_MACMU	O18793 macaca mula	
3	1346.5	68.4	373	1	CKR2_RAT	O55193 rattus norv	
4	1332.5	67.6	373	1	CKR2_MOUSE	P51683 mus musculu	
5	1332.5	67.6	373	2	BAC32793	Bac32793 mus muscu	
6	1327.5	67.4	373	2	Q6YT42	Q6yt42 sus scrofa	
7	1327.5	67.4	373	2	BAD12134	Bad12134 sus scrof	
8	1327.5	67.4	373	2	BAD08648	Bad08648 sus scrof	
9	1327.5	67.4	373	2	BAD08655	Bad08655 sus scrof	
10	1252	63.6	352	2	Q95NC2	Q95nc2 callicebus	
11	1244	63.1	339	2	Q9TQT3	Q9tqt3 callithrix	
12	1244	63.1	339	2	Q9TUV8	Q9tuv8 saguinus sp	
13	1244	63.1	352	2	Q6WN98	Q6wn98 callithrix	
14	1244	63.1	352	2	Q9MZA0	Q9mza0 callithrix	
15	1244	63.1	352	2	AAQ20011	Aaq20011 callithri	

16	1244	63.1	352	2	AAQ20012	Aaq20012 callithri
17	1244	63.1	352	2	AAQ20013	Aaq20013 callithri
18	1244	63.1	354	1	CKR5_MOUSE	P51682 mus musculu
19	1243	63.1	339	2	Q9TQV5	Q9tqv5 saguinus sp
20	1243	63.1	352	2	Q95NC4	Q95nc4 ateles geof
21	1241	63.0	352	2	Q6WN93	Q6wn93 leontopithe
22	1241	63.0	352	2	Q6WN96	Q6wn96 leontopithe
23	1241	63.0	352	2	Q6WN97	Q6wn97 cebuella py
24	1241	63.0	352	2	AAQ20014	Aaq20014 cebuella
25	1241	63.0	352	2	AAQ20015	Aaq20015 leontopit
26	1241	63.0	352	2	AAQ20018	Aaq20018 leontopit
27	1240	62.9	339	2	Q9TUW0	Q9tuw0 saguinus sp
28	1239	62.9	352	2	Q6YT41	Q6yt41 sus scrofa
29	1239	62.9	352	2	Q9MZ99	Q9mz99 ateles sp.
30	1239	62.9	352	2	BAD12135	Bad12135 sus scrof
31	1239	62.9	352	2	BAD08649	Bad08649 sus scrof
32	1239	62.9	352	2	BAD08656	Bad08656 sus scrof
33	1238.5	62.9	339	2	Q9TUV6	Q9tuv6 saguinus sp
34	1238	62.8	339	2	Q9TUW1	Q9tuw1 saguinus sp
35	1237	62.8	339	2	Q9TUV9	Q9tuv9 saguinus sp
36	1236	62.7	339	2	Q9TQW0	Q9tqw0 hylobates c
37	1236	62.7	352	1	CKR5_CERTO	O62743 cercocebus
38	1236	62.7	352	1	CKR5_HYLLE	O97883 hylobates l
39	1236	62.7	352	2	Q6WN92	Q6wn92 leontopithe
40	1236	62.7	352	2	Q6WN94	Q6wn94 leontopithe
41	1236	62.7	352	2	Q71RS2	Q71rs2 cercocebus
42	1236	62.7	352	2	Q8HZT9	Q8hzt9 saimiri sci
43	1236	62.7	352	2	AAK69684	Aak69684 cercocebu
44	1236	62.7	352	2	AAQ20010	Aaq20010 saimiri s
45	1236	62.7	352	2	AAQ20017	Aaq20017 leontopit

# ALIGNMENTS

## RESULT 1

### CKR2\_HUMAN

ID CKR2\_HUMAN STANDARD; PRT; 374 AA.  
AC P41597;  
DT 01-NOV-1995 (Rel. 32, Created)  
DT 01-NOV-1995 (Rel. 32, Last sequence update)  
DT 01-OCT-2004 (Rel. 45, Last annotation update)  
DE C-C chemokine receptor type 2 (C-C CKR-2) (CC-CKR-2) (CCR-2) (CCR2)  
DE (Monocyte chemoattractant protein 1 receptor) (MCP-1-R).  
GN Name=CCR2; Synonyms=CMKBR2;  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=94195821; PubMed=8146186;  
RA Charo I.F., Myers S.J., Herman A., Franci C., Connolly A.J.,  
RA Coughlin S.R.;  
RT "Molecular cloning and functional expression of two monocyte  
RT chemoattractant protein 1 receptors reveals alternative splicing of  
RT the carboxyl-terminal tails.";

RL Proc. Natl. Acad. Sci. U.S.A. 91:2752-2756(1994).  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=94324942; PubMed=8048929;  
 RA Yamagami S., Tokuda Y., Ishii K., Tamaka H., Endo N.;  
 RT "cDNA cloning and functional expression of a human monocyte  
 RT chemoattractant protein 1 receptor.";  
 RL Biochem. Biophys. Res. Commun. 202:1156-1162(1994).  
 RN [3]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=97150864; PubMed=8995400;  
 RA Wong L.-M., Myers S.J., Tsou C.-L., Gosling J., Arai H., Charo I.F.;  
 RT "Organization and differential expression of the human monocyte  
 RT chemoattractant protein 1 receptor gene. Evidence for the role of the  
 RT carboxyl-terminal tail in receptor trafficking.";  
 RL J. Biol. Chem. 272:1038-1045(1997).  
 RN [4]  
 RP SEQUENCE FROM N.A.  
 RA McCombie W.R., Wilson R., Chen E., Gibbs R., Zuo L., Johnson D.,  
 RA Nhan M., Parnell L., Dedhia N., Ansari A., Mardis E., Schutz K.,  
 RA Gnoj L., la Bastide M., Kaplan N., Greco T., Touchman J., Muzny D.,  
 RA Chen C.N., Evans C., Fitzgerald M., See L.H., Tang M., Porcel B.M.,  
 RA Dragan Y., Giacalone J., Pae A., Powell E., Solinsky K.A., Desilva U.,  
 RA Diaz-Perez S., Zhou X., Yu Y., Watanabe M., Doggett N., Garcia D.,  
 RA Sagripanti J.L.;  
 RL Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.  
 RN [5]  
 RP SEQUENCE FROM N.A., AND VARIANTS ILE.64 AND GLU-355.  
 RA Rieder M.J., Armel T.Z., Carrington D.P., Ozuna M., Kuldanek S.A.,  
 RA Rajkumar N., Toth E.J., Yi Q., Nickerson D.A.;  
 RT "SeattleSNPs. NHLBI HL66682 program for genomic applications, UW-  
 RT FHCRC, Seattle, WA (URL: <http://pga.gs.washington.edu>).";  
 RL Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.  
 RN [6]  
 RP SULFATION OF TYR-26, AND N-GLYCOSYLATION.  
 RX MEDLINE=20501139; PubMed=11046064;  
 RA Preobrazhensky A.A., Dragan S., Kawano T., Gavrilin M.A., Gulina I.V.,  
 RA Chakravarty L., Kolattukudy P.E.;  
 RT "Monocyte chemotactic protein-1 receptor CCR2B is a glycoprotein that  
 RT has tyrosine sulfation in a conserved extracellular N-terminal  
 RT region.";  
 RL J. Immunol. 165:5295-5303(2000).  
 CC -!- FUNCTION: Receptor for the MCP-1, MCP-3 and MCP-4 chemokines.  
 CC Transduces a signal by increasing the intracellular calcium ions  
 CC level. Alternative coreceptor with CD4 for HIV-1 infection.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -!- ALTERNATIVE PRODUCTS:  
 CC Event=Alternative splicing; Named isoforms=2;  
 CC Name=A;  
 CC IsoId=P41597-1; Sequence=Displayed;  
 CC Name=B;  
 CC IsoId=P41597-2; Sequence=VSP\_001893;  
 CC -!- PTM: N-glycosylated.  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
 CC -----  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -

CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).

-----  
 DR EMBL; U03882; AAA19119.1; -.  
 DR EMBL; U03905; AAA19120.1; -.  
 DR EMBL; D29984; BAA06253.1; -.  
 DR EMBL; U80924; AAC51637.1; -.  
 DR EMBL; U80924; AAC51636.1; -.  
 DR EMBL; U95626; AAB57791.1; -.  
 DR EMBL; U95626; AAB57792.1; -.  
 DR EMBL; AF545480; AAN16400.1; -.  
 DR PIR; I38450; I38450.  
 DR PIR; JC2443; JC2443.  
 DR PDB; 1KAD; Model; A=1-349.  
 DR PDB; 1KPl; Model; A=1-349.  
 DR Genew; HGNC:1603; CCR2.  
 DR MIM; 601267; -.  
 DR GO; GO:0005887; C:integral to plasma membrane; TAS.  
 DR GO; GO:0005625; C:soluble fraction; TAS.  
 DR GO; GO:0004950; F:chemokine receptor activity; TAS.  
 DR GO; GO:0019735; P:antimicrobial humoral response (sensu Verte. . .); TAS.  
 DR GO; GO:0006968; P:cellular defense response; TAS.  
 DR GO; GO:0006935; P:chemotaxis; TAS.  
 DR GO; GO:0007204; P:cytosolic calcium ion concentration elevation; TAS.  
 DR GO; GO:0006954; P:inflammatory response; TAS.  
 DR GO; GO:0007259; P:JAK-STAT cascade; TAS.  
 DR GO; GO:0007194; P:negative regulation of adenylate cyclase ac. . .; TAS.  
 DR InterPro; IPR002237; CC\_2\_receptor.  
 DR InterPro; IPR000355; Chmkine\_receptor.  
 DR InterPro; IPR000276; GPCR\_Rhodpsn.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00237; GPCRRHODOPSN.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; 1.  
 DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW 3D-structure; Alternative splicing; G-protein coupled receptor;  
 KW Glycoprotein; Polymorphism; Sulfation; Transmembrane.  
 FT DOMAIN 1 42 Extracellular (Potential).  
 FT TRANSMEM 43 70 1 (Potential).  
 FT DOMAIN 71 80 Cytoplasmic (Potential).  
 FT TRANSMEM 81 100 2 (Potential).  
 FT DOMAIN 101 114 Extracellular (Potential).  
 FT TRANSMEM 115 136 3 (Potential).  
 FT DOMAIN 137 153 Cytoplasmic (Potential).  
 FT TRANSMEM 154 178 4 (Potential).  
 FT DOMAIN 179 206 Extracellular (Potential).  
 FT TRANSMEM 207 226 5 (Potential).  
 FT DOMAIN 227 243 Cytoplasmic (Potential).  
 FT TRANSMEM 244 268 6 (Potential).  
 FT DOMAIN 269 285 Extracellular (Potential).  
 FT TRANSMEM 286 309 7 (Potential).  
 FT DOMAIN 310 374 Cytoplasmic (Potential).  
 FT CARBOHYD 14 14 N-linked (GlcNAc. . .) (Potential).  
 FT MOD\_RES 26 26 Sulfotyrosine.  
 FT DISULFID 113 190 By similarity.

FT VARSPLIC 314 374 SLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGR  
 FT GKGSIGRAPEASLQDKEGA -> RYLSVFFRKHITKRFECK  
 FT QCPVFYRETVDGVTSTNTPSTGEQEVSAAGL (in  
 FT isoform B).  
 FT /FTId=VSP\_001893.  
 FT VARIANT 64 64 V -> I (in dbSNP:1799864).  
 FT /FTId=VAR\_014339.  
 FT VARIANT 355 355 G -> E.  
 FT /FTId=VAR\_014340.  
 SQ SEQUENCE 374 AA; 41914 MW; F865E0D39E74CF0F CRC64;

Query Match 100.0%; Score 1970; DB 1; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 1.9e-120;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Db	1	MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN	60
Qy	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY	120
Db	61	MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLY	120
Qy	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Db	121	HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
Qy	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Db	181	CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR	240
Qy	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Db	241	AVRVIFTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI	300
Qy	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Db	301	NPIIYAFVGEKFRSLFHIALGCRIAPLQKPVCGGPGVRPGKNVKVTTQGLLDGRGKGKSI	360
Qy	361	GRAPEASLQDKEGA 374	
Db	361	GRAPEASLQDKEGA 374	

## RESULT 2

### CKR2\_MACMU

ID CKR2\_MACMU STANDARD; PRT; 360 AA.  
 AC O18793;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE C-C chemokine receptor type 2 (C-C CKR-2) (CC-CKR-2) (CCR-2) (CCR2)  
 DE (Monocyte chemoattractant protein 1 receptor) (MCP-1-R).  
 GN Name=CCR2; Synonyms=CMKBR2;  
 OS Macaca mulatta (Rhesus macaque).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;

OC Cercopithecinae; Macaca.  
 OX NCBI\_TaxID=9544;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=21354176; PubMed=11461684; DOI=10.1089/088922201750290104;  
 RA Margulies B.J., Hauer D.A., Clements J.E.;  
 RT "Identification and comparison of eleven rhesus macaque chemokine  
 RT receptors.";  
 RL AIDS Res. Hum. Retroviruses 17:981-986(2001).  
 CC -!- FUNCTION: Receptor for the MCP-1, MCP-3 and MCP-4 chemokines.  
 CC Transduces a signal by increasing the intracellular calcium ions  
 CC level.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -!- ALTERNATIVE PRODUCTS:  
 CC Event=Alternative splicing; Named isoforms=2;  
 CC Name=B;  
 CC IsoId=O18793-1; Sequence=Displayed;  
 CC Name=A;  
 CC IsoId=O18793-2; Sequence=Not described;  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
 CC -----  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 DR EMBL; AF013958; AAD11572.1; -.  
 DR InterPro; IPR002237; CC\_2\_receptor.  
 DR InterPro; IPR000355; Chmkine\_receptor.  
 DR InterPro; IPR000276; GPCR\_Rhodpsn.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00237; GPCRRHODOPSN.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; 1.  
 DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW Alternative splicing; G-protein coupled receptor; Glycoprotein;  
 KW Sulfation; Transmembrane.  
 FT DOMAIN 1 42 Extracellular (Potential).  
 FT TRANSMEM 43 70 1 (Potential).  
 FT DOMAIN 71 80 Cytoplasmic (Potential).  
 FT TRANSMEM 81 100 2 (Potential).  
 FT DOMAIN 101 114 Extracellular (Potential).  
 FT TRANSMEM 115 136 3 (Potential).  
 FT DOMAIN 137 153 Cytoplasmic (Potential). ....  
 FT TRANSMEM 154 178 4 (Potential).  
 FT DOMAIN 179 206 Extracellular (Potential).  
 FT TRANSMEM 207 226 5 (Potential).  
 FT DOMAIN 227 243 Cytoplasmic (Potential).  
 FT TRANSMEM 244 268 6 (Potential).  
 FT DOMAIN 269 285 Extracellular (Potential).  
 FT TRANSMEM 286 309 7 (Potential).  
 FT DOMAIN 310 360 Cytoplasmic (Potential).  
 FT CARBOHYD 14 14 N-linked (GlcNAc. . .) (Potential).  
 FT MOD\_RES 26 26 Sulfotyrosine (By similarity).  
 FT DISULFID 113 190 By similarity.

SQ SEQUENCE 360 AA; 41139 MW; 4B2552BCE913FE9F CRC64;

Query Match 82.0%; Score 1614.5; DB 1; Length 360;  
Best Local Similarity 96.6%; Pred. No. 2.4e-97;  
Matches 308; Conservative 4; Mismatches 4; Indels 3; Gaps 1;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
      |||
Db      1 MLSTSRSRFIRNTNGSGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
      |||
Db     61 MLVVLILINCKKLKSLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120

Qy    121 HIGYFGGIFFIILLTDIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
      |||
Db    121 HIGYLGGIFFIILLTDIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
      ||:|||||:|||||
Db    181 CQEEDSVYICGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240

Qy    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
      |||:|||||
Db    241 AVRLIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTRQLDQATQVTETLGMTHCCI 300

Qy    301 NPIIYAFVGEKFR---SLF 316
      |||
Db    301 NPIIYAFVGEKFRRYLSMF 319
```

RESULT 3

CKR2\_RAT

ID CKR2\_RAT STANDARD; PRT; 373 AA.  
AC 055193;  
DT 16-OCT-2001 (Rel. 40, Created)  
DT 16-OCT-2001 (Rel. 40, Last sequence update)  
DT 05-JUL-2004 (Rel. 44, Last annotation update)  
DE C-C chemokine receptor type 2 (C-C CKR-2) (CC-CKR-2) (CCR-2) (CCR2).  
GN Name=Ccr2; Synonyms=Cmkbr2;  
OS Rattus norvegicus (Rat).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
OX NCBI\_TaxID=10116;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=Sprague-Dawley;  
RX MEDLINE=98318173; PubMed=9655467;  
RA Jiang Y., Salafranca M.N., Adhikari S., Xia Y., Feng L., Sonntag M.K.,  
RA deFiebre C.M., Pennell N.A., Streit W.J., Harrison J.K.;  
RT "Chemokine receptor expression in cultured glia and rat experimental  
RT allergic encephalomyelitis."  
RL J. Neuroimmunol. 86:1-12(1998).  
CC -!- FUNCTION: Receptor for the MCP-1 (JE), MCP-3 (FIC) and MCP-5  
CC chemokines. Transduces a signal by increasing the intracellular  
CC calcium ions level (By similarity).  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.

CC -!- TISSUE SPECIFICITY: Expressed in lung, spleen, kidney, thymus and  
 CC macrophages.  
 CC -!- INDUCTION: In animals in which experimental allergic  
 CC encephalomyelitis (EAE) has been induced.  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.

CC -----  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----

DR EMBL; U77349; AAC03242.1; -.  
 DR RGD; 620876; Ccr2.  
 DR InterPro; IPR002237; CC\_2\_receptor.  
 DR InterPro; IPR000355; Chmkine\_receptor.  
 DR InterPro; IPR000276; GPCR\_Rhodpsn.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00237; GPCRRHODOPSN.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; 1.  
 DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Transmembrane.  
 FT DOMAIN 1 60 Extracellular (Potential).  
 FT TRANSMEM 61 81 Potential.  
 FT DOMAIN 82 91 Cytoplasmic (Potential).  
 FT TRANSMEM 92 112 Potential.  
 FT DOMAIN 113 128 Extracellular (Potential).  
 FT TRANSMEM 129 149 Potential.  
 FT DOMAIN 150 170 Cytoplasmic (Potential).  
 FT TRANSMEM 171 191 Potential.  
 FT DOMAIN 192 220 Extracellular (Potential).  
 FT TRANSMEM 221 241 Potential.  
 FT DOMAIN 242 256 Cytoplasmic (Potential).  
 FT TRANSMEM 257 277 Potential.  
 FT DOMAIN 278 301 Extracellular (Potential).  
 FT TRANSMEM 302 322 Potential.  
 FT DOMAIN 323 373 Cytoplasmic (Potential).  
 FT DISULFID 126 203 By similarity.  
 SQ SEQUENCE 373 AA; 42763 MW; 2E7BB012F5D6FD09 CRC64;

Query Match 68.4%; Score 1346.5; DB 1; Length 373;  
 Best Local Similarity 76.9%; Pred. No. 6.8e-80;  
 Matches 257; Conservative 25; Mismatches 45; Indels 7; Gaps 3;

Qy 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60  
 :||||| | | | : | | | | :||| | |||| | |||| :|||||||  
 Db 14 ILSTSHSLFPRSIQELDEGATTPYDYDDGEPCHKTSVKQIGAWILPPLYSLVFIFGFVGN 73  
 Qy 61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120  
 |||::|||:||||| :|||| | ||||| :||| || | |||||  
 Db 74 MLVIIILISCKKLKSMTDIYLFNLAISDLLFLLTLPFWAHYAANEWVFGNIMCKLFTGLY 133  
 Qy 121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180  
 ||||| ||||| ||||| ||||| :|||: |||: |||||  
 Db 134 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVITSVVTWVAVFASLPGIIFTK 193

Qy 181 CQKEDSVYVCGPYFPRGWNNEFHTIMRNILGLVLPLLMVICYSGILKTLRLCRNEKKRHR 240  
 Db 194 SEQEDDQHTCGPYFPPTIWKNFQTIMRNILSLILPLLMVICYSGILHTLFRRCRNEKKRHR 253  
 Qy 241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300  
 Db 254 AVRLIFAIMIVYFLEWTPYNIVLFLTTFQEFGLMSNCVVDMLDQAMQVTETLGMTHCCV 313  
 Qy 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 Db 314 NPIIYAFVGEKFRRLYSIFFRKHIAKNLCKQCPV 347

#### RESULT 4

##### CKR2\_MOUSE

ID CKR2\_MOUSE STANDARD; PRT; 373 AA.  
 AC P51683; Q61172;  
 DT 01-OCT-1996 (Rel. 34, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE C-C chemokine receptor type 2 (C-C CKR-2) (CC-CKR-2) (CCR-2) (CCR2)  
 DE (JE/FIC receptor) (MCP-1 receptor).  
 GN Name=Ccr2; Synonyms=Cmkbr2;  
 OS Mus musculus (Mouse).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
 OX NCBI\_TaxID=10090;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=96205938; PubMed=8631787;  
 RA Boring L., Gosling J., Monteclaro F.S., Lusis A.J., Tsou C.-L.,  
 RA Charo I.F.;  
 RT "Molecular cloning and functional expression of murine JE (monocyte  
 RT chemoattractant protein 1) and murine macrophage inflammatory protein  
 RT 1alpha receptors: evidence for two closely linked C-C chemokine  
 RT receptors on chromosome 9.";  
 RL J. Biol. Chem. 271:7551-7558(1996).  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RC STRAIN=BALB/c;  
 RX MEDLINE=96216064; PubMed=8662823;  
 RA Kurihara T., Bravo R.;  
 RT "Cloning and functional expression of mCCR2, a murine receptor for the  
 RT C-C chemokines JE and FIC.";  
 RL J. Biol. Chem. 271:11603-11606(1996).  
 RN [3]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=97026720; PubMed=8872898;  
 RA Heesen M., Tanabe S., Berman M.A., Yoshizawa I., Luo Y., Kim R.,  
 RA Post T.W., Gerard C., Dorf M.E.;  
 RT "Mouse astrocytes respond to the chemokines MCP-1 and KC, but reverse  
 RT transcriptase-polymerase chain reaction does not detect mRNA for the  
 RT KC or new MCP-1 receptor.";  
 RL J. Neurosci. Res. 45:382-391(1996).  
 CC -!- FUNCTION: Receptor for the MCP-1 (JE), MCP-3 (FIC) and MCP-5  
 CC chemokines. Transduces a signal by increasing the intracellular

CC calcium ions level.

CC -!- SUBCELLULAR LOCATION: Integral membrane protein.

CC -!- TISSUE SPECIFICITY: Detected in monocyte/macrophage cell lines,

CC but not in nonhematopoietic cell lines.

CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.

CC -----

CC This SWISS-PROT entry is copyright. It is produced through a collaboration

CC between the Swiss Institute of Bioinformatics and the EMBL outstation -

CC the European Bioinformatics Institute. There are no restrictions on its

CC use by non-profit institutions as long as its content is in no way

CC modified and this statement is not removed. Usage by and for commercial

CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>

CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).

CC -----

DR EMBL; U47035; AAC52453.1; -.

DR EMBL; U51717; AAC52557.1; -.

DR EMBL; U56819; AAC52784.1; -.

DR MGD; MGI:106185; Ccr2.

DR GO; GO:0016493; F:C-C chemokine receptor activity; IDA.

DR GO; GO:0019955; F:cytokine binding; IPI.

DR GO; GO:0016066; P:cellular defense response (sensu Vertebrata); IMP.

DR GO; GO:0030097; P:hemopoiesis; IMP.

DR GO; GO:0006959; P:humoral immune response; IMP.

DR GO; GO:0006954; P:inflammatory response; IMP.

DR GO; GO:0019233; P:perception of pain; IMP.

DR GO; GO:0030334; P:regulation of cell migration; IMP.

DR InterPro; IPR002237; CC\_2\_receptor.

DR InterPro; IPR000355; Chmkine\_receptor.

DR InterPro; IPR000276; GPCR\_Rhodpsn.

DR Pfam; PF00001; 7tm\_1; 1.

DR PRINTS; PR00237; GPCRRHODOPSN.

DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; 1.

DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.

KW G-protein coupled receptor; Transmembrane.

FT	DOMAIN	1	55	Extracellular (Potential).
FT	TRANSMEM	56	83	1 (Potential).
FT	DOMAIN	84	93	Cytoplasmic (Potential).
FT	TRANSMEM	94	114	2 (Potential).
FT	DOMAIN	115	127	Extracellular (Potential).
FT	TRANSMEM	128	149	3 (Potential).
FT	DOMAIN	150	166	Cytoplasmic (Potential).
FT	TRANSMEM	167	191	4 (Potential).
FT	DOMAIN	192	219	Extracellular (Potential).
FT	TRANSMEM	220	239	5 (Potential).
FT	DOMAIN	240	256	Cytoplasmic (Potential).
FT	TRANSMEM	257	281	6 (Potential).
FT	DOMAIN	282	298	Extracellular (Potential).
FT	TRANSMEM	299	322	7 (Potential).
FT	DOMAIN	323	373	Cytoplasmic (Potential).
FT	DISULFID	126	203	By similarity.
FT	CONFLICT	39	39	Y -> H (in Ref. 1).
FT	CONFLICT	184	184	A -> G (in Ref. 1).
FT	CONFLICT	264	264	V -> G (in Ref. 1).
SQ	SEQUENCE	373 AA;	42782 MW;	FA012C10F4C9325A CRC64;

Query Match 67.6%; Score 1332.5; DB 1; Length 373;

Best Local Similarity 76.3%; Pred. No. 5.5e-79;

Matches 255; Conservative 26; Mismatches 46; Indels 7; Gaps 3;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
        :||| | | : | | || :|| | ||| ||||| :|||||||
Db      14 ILSTSHSLFTRSIQELDEGATTPYDYDDGEPCHKTSVKQIGAWILPPLYSLVFIFGFVGN 73

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
        |||::||| ||||| :||||||| |||||:||| ||| ||||| |||:|||||
Db     74 MLVIIILIGCKKLKSMTDIYLLNLAISDLLFLLTLPPFWAHYAANEWVFGNIMCKVFTGLY 133

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVEFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    134 HIGYFGGIFFIILLTIDRYLAIVHAVEFALKARTVTFGVITSVVTWVVAVFASLPGIIFTK 193

Qy    181 CQKEDSVYVCGPYFPRGWNNEFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
        :::| | ||||| : | || ||||| | :|||:||||||| || |||||
Db    194 SKQDDHHYTCGPYFTQLWKNFQTIMRNILSLILPLLVMVICYSGILHTLFCRNEKKRHR 253

Qy    241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
        |||:| | ||||| |||||: | |||| | :||| ||||| ||||| |||||
Db    254 AVRILFAIMIVYFLEWTPYNIVLFLTTFQESLGMSNCVIDKHLDAQMQVTETLGMTHCCI 313

Qy    301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327
        ||:||||||| ||:| ||| | : | :
Db    314 NPVIYAFVGEKFRRYLSIFFRKHIAKRLCKQCPV 347
```

#### RESULT 5

BAC32793

```
ID  BAC32793      PRELIMINARY;      PRT;      373 AA.
AC  BAC32793;
DT  14-APR-2004 (TrEMBLrel. 27, Created)
DT  14-APR-2004 (TrEMBLrel. 27, Last sequence update)
DT  14-APR-2004 (TrEMBLrel. 27, Last annotation update)
DE  4 days neonate male adipose cDNA, RIKEN full-length enriched library,
DE  clone:B430108F19 product:chemokine (C-C) receptor 2, full insert
DE  sequence.
OS  Mus musculus (Mouse).
OC  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX  NCBI_TaxID=10090;
RN  [1]
RP  SEQUENCE FROM N.A.
RC  STRAIN=C57BL/6J; TISSUE=Adipose;
RX  MEDLINE=22354683; PubMed=12466851;
RA  The FANTOM Consortium,
RA  the RIKEN Genome Exploration Research Group Phase I & II Team;
RT  "Analysis of the mouse transcriptome based on functional annotation of
RT  60,770 full-length cDNAs.";
RL  Nature 420:563-573(2002).
RN  [2]
RP  SEQUENCE FROM N.A.
RC  STRAIN=C57BL/6J; TISSUE=Adipose;
RX  MEDLINE=21085660; PubMed=11217851;
RA  RIKEN FANTOM Consortium;
RT  "Functional annotation of a full-length mouse cDNA collection.";
RL  Nature 409:685-690(2001).
```



Qy 61 MLVVLILINCKKLKCLTDIYLLNLAI SDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120  
 |||::||| ||||| :|||||||:|||| ||| ||||| |||:|||||  
 Db 74 MLVIIILIGCKKLKSM TDIYLLNLAI SDLLFLLTLPFWAHYAANEWVFGNIMCKVFTGLY 133

Qy 121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180  
 |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||  
 Db 134 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVITSVVTWVAVFASLPGIIFTK 193

Qy 181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLPLLLIMVICYSGILKTLLRCRNEKKRHR 240  
 :::| | ||||| : | | ||||| : |||||:||||| || ||||| |||||  
 Db 194 SKQDDHHYTCGPYFTQLWKNFQTIMRNILSLILPLLVMVICYSGILHTLFCRNEKKRHR 253

Qy 241 AVRVIPTIMIVYFLEWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300  
 |||:| | |||||: | ||| | :||| ||| ||||| |||||  
 Db 254 AVRLIFAIMIVYFLEWTPYNIVLFLTFQESLGMSNCVIDKHL DQAMQVTETLGMTHCCI 313

Qy 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 ||:||||||| | :| ||| | : | :  
 Db 314 NPVIYAFVGEKFRRLYSIFFRKHIAKRLCKQCPV 347

# RESULT 6

Q6YT42

ID Q6YT42 PRELIMINARY; PRT; 373 AA.  
 AC Q6YT42;  
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)  
 DE Chemokine (C-C motif) receptor 2 (Chemokine C-C motif receptor  
 DE 2).  
 GN Name=CCR2;  
 OS Sus scrofa (Pig).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.  
 OX NCBI\_TaxID=9823;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Shinkai H., Morozumi T., Toki D., Muneta Y., Awata T., Uenishi H.;  
 RL Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RA Shinkai H., Morozumi T., Toki D., Muneta Y., Awata T., Uenishi H.;  
 RL Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.  
 RN [3]  
 RP SEQUENCE FROM N.A.  
 RA Shinkai H., Morozumi T., Toki D., Eguchi T., Muneta Y., Awata T.,  
 RA Uenishi H.;  
 RL Submitted (SEP-2003) to the EMBL/GenBank/DDBJ databases.  
 DR EMBL; AP006185; BAD08648.1; -.  
 DR EMBL; AP006435; BAD08655.1; -.  
 DR EMBL; AB119271; BAD12134.1; -.  
 DR GO; GO:0004872; F:receptor activity; IEA.  
 DR InterPro; IPR002237; CC\_2\_receptor.  
 DR InterPro; IPR000355; Chm\_kine\_receptor.  
 DR InterPro; IPR000276; GPCR\_Rhodpsn.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00657; CCHEMOKINER.

DR PRINTS; PR01107; CHEMOKINER2.  
 DR PRINTS; PR00237; GPCRRHODOPSN.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; UNKNOWN\_1.  
 DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW Receptor.  
 SQ SEQUENCE 373 AA; 42299 MW; FA8E55CA527A34E0 CRC64;

Query Match 67.4%; Score 1327.5; DB 2; Length 373;  
 Best Local Similarity 76.0%; Pred. No. 1.2e-78;  
 Matches 254; Conservative 29; Mismatches 44; Indels 7; Gaps 3;

Qy 1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60  
 :| || | : || || :||| || | || | |||||  
 Db 14 VLPTSHSLTMNIKGNDEEPTTSYDYDYSEPCQKTSVGQIEALLPPLYSLVFIFGFVGN 73  
 Qy 61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEVWVFGNAMCKLFTGLY 120  
 :||| ||||| :||| ||||| |:| ||| ||:| |||| | ||||  
 Db 74 LLVVLILINCKKLKSMTDIYLLNLAISDLLFLFTIPFWAHYAADQWVFGNIMCKFFTGLY 133  
 Qy 121 HIGYFGGIFFIILLTIDRYLAIVHAVEFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180  
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| :||:|:|:|:|:|:|:|  
 Db 134 HIGYFGGIFFIILLTIDRYLAIVHAVEFALKARTVTFGVVTSVITWVVAIFASLPGIIFIR 193  
 Qy 181 CQKEDSVYVCGPYFPRGWNNEFTIMRNILGLVPLLLIMVICYSGILKTLLRCRNEKKRHR 240  
 |:| | | | |||| | |||||:| |||||:|:|:| ||||| |||||:|:|  
 Db 194 SQEEHSGYACAPYFPLAWKNFHTIMRSILGLVPLLLVMVVCYSGILKTLLRCRNEKKKKHK 253  
 Qy 241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300  
 |||:| | ||||| |||||:|:| |||||:|:| ||||| |||||:| |||||  
 Db 254 AVRLIFVIMIVYFLFWAPYNIVLLSTFQVFFGLSNCKNSSQLDQAMQVTETLGLTHCCI 313  
 Qy 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 ||||| ||||| |:| ||| |:| :|  
 Db 314 NPIIYAFVGEKFRRLSVFFRKHIAKHLCKQCPV 347

# RESULT 7

BAD12134

ID BAD12134 PRELIMINARY; PRT; 373 AA.  
 AC BAD12134;  
 DT 03-MAR-2004 (TrEMBLrel. 27, Created)  
 DT 03-MAR-2004 (TrEMBLrel. 27, Last sequence update)  
 DT 03-MAR-2004 (TrEMBLrel. 27, Last annotation update)  
 DE Chemokine C-C motif receptor 2.  
 GN CCR2.  
 OS Sus scrofa (Pig).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.  
 OX NCBI\_TaxID=9823;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Shinkai H., Morozumi T., Toki D., Eguchi T., Muneta Y., Awata T.,  
 RA Uenishi H.;  
 RT "Analysis of genomic structure of porcine CC chemokine receptor genes  
 RT and their expression."  
 RL Submitted (SEP-2003) to the EMBL/GenBank/DDBJ databases.  
 DR EMBL; AB119271; BAD12134.1; -.

SQ SEQUENCE 373 AA; 42299 MW; FA8E55CA527A34E0 CRC64;

Qy	1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFI GFVGN	60
	:      :       :	
Db	14 VLPTSHSLTMNIKGNDEEPTTSYDYDYSEPCQKTSVGQIEALLPPLYSLVFIFGFVGN	73
Qy	61 MLVVILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY	120
	:         :         :      : :	
Db	74 LLVVILINCKKLKSMTDIYLLNLAISDLLFLFTIPFWAHYAADQWVFGNIMCKFFTGLY	133
Qy	121 HIGYFGGIFFIIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK	180
	:	
Db	134 HIGYFGGIFFIIILLTIDRYLAIVHAVFALKARTVTFGVVTSGVTWVVAIFASLPGIIFIR	193
Qy	181 CQKEDSVYVCGPYPFRGWNNFH TIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRRHR	240
	:  :	
Db	194 SQEEHSYGACAPYFPLAWKNFHTIMRSILGLVLPLLMVVCYSGILKTLLRCRNEKKKHK	253
Qy	241 AVRVI FTIMIVYFLFWTPYNIVILLNTFQE FFGLSNCESTS QLDQATQVTETLG MTHCCI	300
	:	
Db	254 AVRLIFVMIVYFLFWAPYNIVLLLSTFQVFFGLSNCKNSSQLDQAMQVTETLGLTHCCI	313
Qy	301 NP II YAFVGEKFR---S LF ---H IAL G- CRIAP L	327
	:       :  :	
Db	314 NP II YAFVGEKFRRYL SVFFRKHI AKHLCKQCP V	347

BAD08648

```

ID      BAD08648      PRELIMINARY;          PRT;    373 AA.
AC      BAD08648;
DT      02-MAR-2004   (TrEMBLrel. 27, Created)
DT      02-MAR-2004   (TrEMBLrel. 27, Last sequence update)
DT      02-MAR-2004   (TrEMBLrel. 27, Last annotation update)
DE      Chemokine (C-C motif) receptor 2.
GN      CCR2.
OS      Sus scrofa (Pig).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX      NCBI_TaxID=9823;
RN      [1]
RP      SEQUENCE FROM N.A.
RA      Shinkai H., Morozumi T., Toki D., Muneta Y., Awata T., Uenishi H.;
RT      "Cloning of porcine CC chemokine receptor genes and clustering
RT      structure on SSC13.";
RL      Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.
DR      EMBL; AP006185; BAD08648.1; -.
KW      Receptor.
SO      SEQUENCE      373 AA;  42299 MW;  FA8E55CA527A34E0 CRC64;

```

Query Match 67.4%; Score 1327.5; DB 2; Length 373;  
Best Local Similarity 76.0%; Pred. No. 1.2e-78;

Matches 254; Conservative 29; Mismatches 44; Indels 7; Gaps 3;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
      :| || |   |   : || || :||| || |   |   |   |   |   |   |   |   |
Db      14 VLPTSHSLTMNIKGNDEEPTTSYDYDYSEPCQKTSVGQIEALLLPPLYSLVFIFGFVGN 73

Qy     61 MLVVLILINCKKLKCLTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLY 120
      :||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db     74 LLVVLILINCKKLKSMTDIYLLNLAISDLLFLFTIPFWAHYAADQWVFGNIMCKFFTGLY 133

Qy    121 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db    134 HIGYFGGIFFIILLTIDRYLAIVHAVFALKARTVTFGVVTSVITWVVAIFASLPGIIFIR 193

Qy    181 CQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGILKTLLRCRNEKKRHR 240
      |:| || | ||| | ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db    194 SQEEHSGYACAPYFPLAWKNFHTIMRSILGLVLP LLVMVVCYSGILKTLLRCRNEKKKHK 253

Qy    241 AVRVIPTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI 300
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db    254 AVRILFVIMIVYFLFWAPYNIVLLSTFQVFFGLSNCKNSSQLDQAMQVTETLGLTHCCI 313

Qy    301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db    314 NPIIYAFVGEKFRRYLSVFFRKHIAKHLCKQCPV 347
```

#### RESULT 9

BAD08655

```
ID  BAD08655    PRELIMINARY;      PRT;    373 AA.
AC  BAD08655;
DT  02-MAR-2004 (TrEMBLrel. 27, Created)
DT  02-MAR-2004 (TrEMBLrel. 27, Last sequence update)
DT  02-MAR-2004 (TrEMBLrel. 27, Last annotation update)
DE  Chemokine (C-C motif) receptor 2.
GN  CCR2.
OS  Sus scrofa (Pig).
OC  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX  NCBI_TaxID=9823;
RN  [1]
RP  SEQUENCE FROM N.A.
RA  Shinkai H., Morozumi T., Toki D., Muneta Y., Awata T., Uenishi H.;
RT  "Cloning of porcine CC chemokine receptor genes and clustering
RT  structure on SSC13.";
RL  Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
DR  EMBL; AP006435; BAD08655.1; -.
KW  Receptor.
SQ  SEQUENCE    373 AA;  42299 MW;  FA8E55CA527A34E0 CRC64;
```

Query Match 67.4%; Score 1327.5; DB 2; Length 373;  
Best Local Similarity 76.0%; Pred. No. 1.2e-78;  
Matches 254; Conservative 29; Mismatches 44; Indels 7; Gaps 3;

```
Qy      1 MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGN 60
      :| || |   |   : || || :||| || |   |   |   |   |   |   |   |   |
Db      14 VLPTSHSLTMNIKGNDEEPTTSYDYDYSEPCQKTSVGQIEALLLPPLYSLVFIFGFVGN 73
```



DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; 1.  
 DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Receptor; Transmembrane.  
 SQ SEQUENCE 352 AA; 40495 MW; 7FB307513ACF9B9B CRC64;

Query Match 63.6%; Score 1252; DB 2; Length 352;  
 Best Local Similarity 76.1%; Pred. No. 9e-74;  
 Matches 239; Conservative 26; Mismatches 37; Indels 12; Gaps 3;

Qy 18 EEVTTFFDYDYGA--PCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKC 75  
 | : :| |||| || |||||:|||||||:|:|||||||:|  
 Db 4 EVSSPIYDIDYGASEPCQKIDVKQMGAQLLPPLYSMVFLFGFVGNMLVVLILINCKRLKS 63  
 Qy 76 LTDIYLLNLAISDLLFLITLPLWAHSAANEVWFGNAMCKLFTGLYHIGYFGGIFFIILLT 135  
 :||||||| || ||:| ||| || :| ||| ||: ||| ||:| |||||  
 Db 64 MTDIYLLNLAISDLFFLETFVPFWAHYAAGQWDFGNTMCQFLTGLYFIGFFSGIFFIILLT 123  
 Qy 136 IDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFP 195  
 |||||:|||||:|||||:|||||: ||| | | :||  
 Db 124 IDRYLAIVHAVFALKARTVTFGVVTSVITWVAVFASLPGIIFTRSQKEGYHYTCSPHFP 183  
 Qy 196 RG----WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRVAVRVIIFTIMIV 251  
 | | | : |||||:|||||||:|||||||:|  
 Db 184 FGQYRFWKNLETLKMVILGLVLPLLVMVICYSGILKTLRLCRNEKKRHRVRLIFTIMIV 243  
 Qy 252 YFLFWTPYNIVILLNTFQEFFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEK 311  
 |||||:|||||:|||||:| |::||| |||||:|||||||  
 Db 244 YFLFWAPYNIVLLLNTYQEFFFGLNNCSSNRLDQAMQVTETLGMTHCCVNPIIYAFVGEK 303  
 Qy 312 FRSLF-----HIA 319  
 ||: |||  
 Db 304 FRNYLLVFFQKHIA 317

# RESULT 11

## Q9TQT3

ID Q9TQT3 PRELIMINARY; PRT; 339 AA.  
 AC Q9TQT3;  
 DT 01-MAY-2000 (TrEMBLrel. 13, Created)  
 DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)  
 DE C-C chemokine receptor 5 (Fragment).  
 GN Name=CCR5;  
 OS Callithrix jacchus (Common marmoset).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Callithrix.  
 OX NCBI\_TaxID=9483;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=22942991; PubMed=14581567;  
 RA Kunstman K.J., Puffer B., Korber B.T., Kuiken C., Smith U.R.,  
 RA Kunstman J., Stanton J., Agy M., Shibata R., Yoder A.D., Pillai S.,  
 RA Doms R.W., Marx P., Wolinsky S.M.;  
 RT "Structure and function of CC-chemokine receptor 5 homologues derived  
 RT from representative primate species and subspecies of the taxonomic  
 RT suborders Prosimii and Anthropoidea."  
 RL J. Virol. 77:12310-12318(2003).



Qy 258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLF- 316  
 |||||:||||:||||:| |::||| |||||:|||||:  
 Db 243 PYNIVLLLNTYQEFFGLNNCSSSNRLDQAMQVTETLGMTHCCVNPPIIYAFVGEKFRNYLA 302

Qy 317 -----HIA 319  
 |||  
 Db 303 VFFQKHIA 310

# RESULT 12

Q9TUV8

ID Q9TUV8 PRELIMINARY; PRT; 339 AA.  
 AC Q9TUV8;  
 DT 01-MAY-2000 (TrEMBLrel. 13, Created)  
 DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)  
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
 DE C-C chemokine receptor 5 (Fragment).  
 GN Name=CCR5;  
 OS Saguinus sp.  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Saguinus.  
 OX NCBI\_TaxID=100754;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=22942991; PubMed=14581567;  
 RA Kunstman K.J., Puffer B., Korber B.T., Kuiken C., Smith U.R.,  
 RA Kunstman J., Stanton J., Agy M., Shibata R., Yoder A.D., Pillai S.,  
 RA Doms R.W., Marx P., Wolinsky S.M.;  
 RT "Structure and function of CC-chemokine receptor 5 homologues derived  
 RT from representative primate species and subspecies of the taxonomic  
 RT suborders Prosimii and Anthropoidea.";  
 RL J. Virol. 77:12310-12318(2003).  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RA Kunstman K., Chen Z., Korber B., Oprondek J., Stanton J., Agy M.,  
 RA Shibata R., Yoder A., Pillai S., Kuiken C., Marx P., Wolinsky S.;  
 RL Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
 DR EMBL; AF161929; AAD47686.1; -.  
 DR GO; GO:0016021; C:integral to membrane; IEA.  
 DR GO; GO:0016493; F:C-C chemokine receptor activity; IEA.  
 DR GO; GO:0004872; F:receptor activity; IEA.  
 DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.  
 DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.  
 DR InterPro; IPR000923; BlueCu\_1.  
 DR InterPro; IPR002240; CC\_5\_receptor.  
 DR InterPro; IPR000355; Chmkine\_receptor.  
 DR InterPro; IPR000276; GPCR\_Rhodpsn.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00657; CCCHEMOKINER.  
 DR PRINTS; PR01110; CHEMOKINER5.  
 DR PRINTS; PR00237; GPCRRHODOPSN.  
 DR PROSITE; PS00196; COPPER\_BLUE; UNKNOWN\_1.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; 1.  
 DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Receptor; Transmembrane.

FT NON\_TER 1 1  
 FT NON\_TER 339 339  
 SQ SEQUENCE 339 AA; 39164 MW; 6A67CF5D22C70C49 CRC64;

Query Match 63.1%; Score 1244; DB 2; Length 339;  
 Best Local Similarity 77.3%; Pred. No. 2.9e-73;  
 Matches 238; Conservative 24; Mismatches 34; Indels 12; Gaps 3;

Qy 24 FDYDYG--APCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLTDIYL 81  
 :| ||| || | ||||:| |||||:|:| ||||| |||||: | :|||  
 Db 3 YDIDYGPSEPCRKIDVKQMGHLLPPLYSMVFLFGFVGNMLVVLILINCKRPKSMTDIYL 62

Qy 82 LNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLA 141  
 |||||:| | :| ||| || :| ||| ||: ||| ||:| ||||| |||||  
 Db 63 LNLAISDLIFLFTVPFWAHYAAGQWDFGNTMCQFLTGLYFIGFFSGIFFIILLTIDRYLA 122

Qy 142 IVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRG---- 197  
 ||||| ||||| |||||:| |||||: ||| | | :||| |  
 Db 123 IVHAVFALKARTVTFGVVTSVITWLVAVFASLPGIIFTRSQKEGYHYTCSPHYFPGYQF 182

Qy 198 WNNFHTIMRNILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 257  
 | || | : ||||| ||||| |||||:| ||||| |||||  
 Db 183 WKNFETLKMVILGLVLP LLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLFWA 242

Qy 258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLF- 316  
 |||||:| ||||:| ||||:| |::||| ||||| ||||| |||||:|  
 Db 243 PYNIVLLLNTYQEFFGLNNCSSNRLDQAMQVTETLGMTHCCINPIIYAFVGEKFRNYLV 302

Qy 317 -----HIA 319  
 |||  
 Db 303 VFFQKHIA 310

# RESULT 13

Q6WN98

ID Q6WN98 PRELIMINARY; PRT; 352 AA.  
 AC Q6WN98;  
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)  
 DE CC chemokine receptor 5.  
 GN Name=ccr5;  
 OS Callithrix humeralifera (tassel-eared marmoset).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Callithrix.  
 OX NCBI\_TaxID=52232;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Soares E.A.J.M., Schrago C.G., Ribeiro I.P., Pissinatti A.,  
 RA Seuanez H.N., Russo C.A.M., Tanuri A., Soares M.A.;  
 RL Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
 DR EMBL; AY278745; AAQ20013.1; -.  
 DR EMBL; AY278744; AAQ20012.1; -.  
 DR GO; GO:0004872; F:receptor activity; IEA.  
 DR InterPro; IPR000923; BlueCu\_1.

```
DR   InterPro; IPR002240; CC_5_receptor.
DR   InterPro; IPR000355; Chm_kine_receptor.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00657; CCHEMOKINER.
DR   PRINTS; PR01110; CHEMOKINER5.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PROSITE; PS00196; COPPER_BLUE; UNKNOWN_1.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transmembrane.
SQ   SEQUENCE   352 AA;  40522 MW;  FF0D0A852E553AF5 CRC64;
```

Qy	24	FDYDYG--APCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLCLTDIYL	81
		:              :       : :             :    :	
Db	10	YDIDYGPSEPCRKIDVKQMGALLPPLYSMVFLFGFVGNMLVVLILINCKRLKSMTDIYL	69
Qy	82	LNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLA	141
		:     :         :        :       :	
Db	70	LNLAISDLIFLFTVPFWAHYAAGQWDFGNTMCQFLTGLYFIGFFSGIFFIILLTIDRYLA	129
Qy	142	IVHAVFALKARTVTFTGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFP----RG	197
		:     :     :          :    :	
Db	130	IVHAVFALKARTVTFTGVVTSVITWVAVFASLPGIIFTRSQKEGYHYTCSPHFPFSQYQF	189
Qy	198	WNNFHTIMRNILGLVLPLLIMVICYSGILKTLLRCRNEKKRHRAVRVIFTIMIVYFLEWT	257
		:        :           :	
Db	190	WKNFETLKMVILGLVLPLLVMVICYSGILKTLLRCRNEKKRHRAVRLIFTIMIVYFLFWA	249
Qy	258	PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLF-	316
		:    :    :     :           :     :	
Db	250	PYNIVLLLNTYQEFFGLNNCSSNRLDQAMQVTETLGMTHCCVNPIIYAFVGEKFRNYLK	309
Qy	317	-----HIA 319	
Db	310	VFFQKHIA 317	

## RESULT 14

```
ID      Q9MZA0          PRELIMINARY;          PRT;      352 AA.
AC      Q9MZA0;
DT      01-OCT-2000 (TrEMBLrel. 15, Created)
DT      01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT      05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE      CC chemokine receptor 5 (Chemokine receptor CCR5).
GN      Name=CCR5; Synonyms=ccr5;
OS      Callithrix jacchus (Common marmoset).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Callithrix.
OX      NCBI_TaxID=9483;
RN      [1]
RP      SEQUENCE FROM N.A.
```

RX MEDLINE=20317091; PubMed=10747879;  
 RA Mummidi S., Bamshad M., Ahuja S.S., Gonzalez E., Feuillet P.M.,  
 RA Begum K., Galvis M.C., Kostecky V., Valente A.J., Murthy K.K.,  
 RA Haro L., Dolan M.J., Allan J.S., Ahuja S.K.;  
 RT "Evolution of human and non-human primate CC chemokine receptor 5 gene  
 RT and mRNA. Potential roles for haplotype and mRNA diversity,  
 RT differential haplotype-specific transcriptional activity, and altered  
 RT transcription factor binding to polymorphic nucleotides in the  
 RT pathogenesis of HIV-1 and simian immunodeficiency virus.";  
 RL J. Biol. Chem. 275:18946-18961(2000).  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=22174698; PubMed=12186836;  
 RA LaBonte J.A., Babcock G.J., Patel T., Sodroski J.;  
 RT "Blockade of HIV-1 infection of New World monkey cells occurs  
 RT primarily at the stage of virus entry.";  
 RL J. Exp. Med. 196:431-445(2002).  
 RN [3]  
 RP SEQUENCE FROM N.A.  
 RA Soares E.A.J.M., Schrago C.G., Ribeiro I.P., Pissinatti A.,  
 RA Seuanez H.N., Russo C.A.M., Tanuri A., Soares M.A.;  
 RL Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.  
 RN [4]  
 RP SEQUENCE FROM N.A.  
 RA Zhang Y., Ryder O.A., Zhang Y.;  
 RL Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
 DR EMBL; AF252554; AAF87984.1; -.  
 DR EMBL; AF452614; AAN14530.1; -.  
 DR EMBL; AY278743; AAQ20011.1; -.  
 DR EMBL; AF177878; AAK43361.1; -.  
 DR GO; GO:0016021; C:integral to membrane; IEA.  
 DR GO; GO:0016493; F:C-C chemokine receptor activity; IEA.  
 DR GO; GO:0004872; F:receptor activity; IEA.  
 DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.  
 DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.  
 DR InterPro; IPR000923; BlueCu\_1.  
 DR InterPro; IPR002240; CC\_5\_receptor.  
 DR InterPro; IPR000355; Chmkine\_receptor.  
 DR InterPro; IPR000276; GPCR\_Rhodpsn.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00657; CICHEMOKINER.  
 DR PRINTS; PR01110; CHEMOKINER5.  
 DR PRINTS; PR00237; GPCRRHODOPSN.  
 DR PROSITE; PS00196; COPPER\_BLUE; UNKNOWN\_1.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; 1.  
 DR PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Receptor; Transmembrane.  
 SQ SEQUENCE 352 AA; 40465 MW; FF0D0A8D06F7B8F5 CRC64;

Query Match 63.1%; Score 1244; DB 2; Length 352;  
 Best Local Similarity 76.6%; Pred. No. 3e-73;  
 Matches 236; Conservative 27; Mismatches 33; Indels 12; Gaps 3;

Qy 24 FDYDYG--APCHKFDVKQIGAQLLPPLYSIVFIFGFVGNMLVVLILINCKKCLKLTDIYL 81  
 :| ||| || | ||||:| |||||:|:|||||||:|||||

Db 10 YDIDYGPSEPCRKIDVKQMGHLLPPLYSMVFLFGFVGNMLVVLILINCKRLKSMTDIYL 69

Qy 82 LNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLA 141  
 |||||:| | :| || | :| || | :| ||| | :| |||||

Db 70 LNLAISDLIFLFTVPFWAHYAAGQWDFGNTMCQFLTGLYFIGFFSGIFFIILLTIDRYLA 129

Qy 142 IVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFP----RG 197  
 |||||:| | :| ||| | :| ||| | :| ||| | :| ||| | :|

Db 130 IVHAVFALKARTVTFGVVTSVITWVAVFASLPGIIFTRSQKEGYHYTCSPHFPFSQYQF 189

Qy 198 WNNFHTIMRNILGLVLPLLIMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWT 257  
 | | | : | |||||:| |||||:| |||||:| |||||:| |||||

Db 190 WKNFETLKMVILGLVLPLLVMVICYSGILKTLRLCRNEKKRHRAVRVIFTIMIVYFLEWA 249

Qy 258 PYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCINPIIYAFVGEKFRSLF- 316  
 |||||:| |||||:| |||||:| | :||| | |||||:| |||||:|

Db 250 PYNIVLLLNTYQEFFGLNCCSSNRLDQAMQVTETLGMTHCCVNPIIYAFVGEKFRNYLA 309

Qy 317 -----HIA 319  
 |||

Db 310 VFFQKHIA 317

# RESULT 15

AAQ20011

ID AAQ20011 PRELIMINARY; PRT; 352 AA.

AC AAQ20011;

DT 10-MAY-2004 (TrEMBLrel. 27, Created)

DT 10-MAY-2004 (TrEMBLrel. 27, Last sequence update)

DT 10-MAY-2004 (TrEMBLrel. 27, Last annotation update)

DE CC chemokine receptor 5.

GN CCR5.

OS Callithrix jacchus (Common marmoset).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Callithrix.

OX NCBI\_TaxID=9483;

RN [1]

RP SEQUENCE FROM N.A.

RA Soares E.A.J.M., Schrago C.G., Ribeiro I.P., Pissinatti A.,

RA Seuanez H.N., Russo C.A.M., Tanuri A., Soares M.A.;

RT "CCR5 chemokine receptor gene evolution in new world monkeys

RT (Platyrrhini, Primates): implication on resistance to lentiviruses.";

RL Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.

DR EMBL; AY278743; AAQ20011.1; -.

KW Receptor.

SQ SEQUENCE 352 AA; 40465 MW; FF0D0A8D06F7B8F5 CRC64;

Query Match 63.1%; Score 1244; DB 2; Length 352;

Best Local Similarity 76.6%; Pred. No. 3e-73;

Matches 236; Conservative 27; Mismatches 33; Indels 12; Gaps 3;

Qy 24 FDYDYG--APCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKCLTDIYL 81  
 :| ||| || | ||||:| |||||:| :| |||||

Db 10 YDIDYGPSEPCRKIDVKQMGHLLPPLYSMVFLFGFVGNMLVVLILINCKRLKSMTDIYL 69

Qy 82 LNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLA 141  
 |||||:| | :| || | :| || | :| ||| | :| |||||

